Averroes' Tahafut

Al-Tahafut

(The Incoherence of the Incoherence)
Volumes I and II

Translated by
Simon Van Den Bergh

"E. J. W. GIBB MEMORIAL"

NEW SERIES XIX

AVERROES' TAHAFUT AL-TAHAFUT

(*The Incoherence of the Incoherence*)

TRANSLATED FROM THE ARABIC
WITH INTRODUCTION AND NOTES
BY
SIMON VAN DEN BERGH

VOLUMES I AND II

PUBLISHED AND
DISTRIBUTED BY
THE TRUSTEES OF THE
"E. J. W. GIBB MEMORIAL"

All rights reserved. No part of this book
may be reproduced in any form, by mimeograph
or any other means without permission in
writing from the publishers.

© EJW Gibb Memorial Trust 1954
Reprinted 1969
Reprinted as one volume 1978 and 1987

ISBN 0 906094 04 6

Produced in association with
Book Production Consultants, Cambridge, England

Reprinted at the University Press, Cambridge

THIS VOLUME

IS ONE OF A SERIES

PUBLISHED BY THE TRUSTEES OF

THE "E. J. W. GIBB MEMORIAL"

The funds of this Memorial are derived from the Interest accruing from a Sum of money given by the late MRS GIBB *of Glasgow, to perpetuate the Memory of her beloved Son*

ELIAS JOHN WILKINSON GIBB

and to promote those researches into the History, Literature, Philosophy and Religion of the Turks, Persians and Arabs, to which, from his Youth upwards, until his premature and deeply lamented Death in his forty-fifth year, on December 5, 1901, *his life was devoted.*

تِلْكَ آثَارُنَا تَدُلُّ عَلَيْنَا * فَانْظُرُوا بَعْدَنَا إِلَى الْآثَارِ

"These are our works, these works our souls display;
Behold our works when we have passed away."

CLERK OF THE TRUST

P. R. Bligh, F.C.A.
c/o Spicer and Oppenheim
Leda House, Station Road
Cambridge, England

A catalogue of other publications by **the Trust** will be sent upon request.

VOLUME I

PREFACE

I wish to express my warmest thanks to the Trustees of the Gibb Memorial Fund for making the publication of this work possible, and especially to Professor Sir Hamilton Gibb, who asked me to undertake the work and who has not only read the proofs but has continually given me his interest and encouragement. I am also deeply indebted to Dr. R. Walzer, who has read the proofs, carefully checked the references in my notes, and composed the indexes and the Greek–Arabic and Arabic–Greek vocabularies. I have also to thank Dr. S. M. Stern for his help in completing the subject-index. Finally, I wish to pay a tribute to one who is no longer amongst us, Father Maurice Bouyges, without whose admirable text the work could never have been undertaken.

The marginal numbers in Vol. I refer to the text of Father Bouyges's edition of the *Tahafut al Tahafut* in his *Bibliotheca Arabica Scholasticorum*, vol. iii, Beyrouth, 1930.

The asterisks indicate different readings from those to be found in Bouyges's text: cf. the Appendix, Vol. I, pp. 364 ff.

CONTENTS

(VOLUME I)

INTRODUCTION *Page* ix

TRANSLATION

THE FIRST DISCUSSION 1
Concerning the Eternity of the World

THE FIRST PROOF 1
THE SECOND PROOF 37
THE THIRD PROOF 57
THE FOURTH PROOF 58

THE SECOND DISCUSSION 69
The Refutation of their Theory of the Incorruptibility of the World and of Time and Motion

THE THIRD DISCUSSION 87
The demonstration of their confusion in saying that God is the agent and the maker of the world and that the world in His product and act, and the demonstration that these expressions are in their system only metaphors without any real sense

THE FOURTH DISCUSSION 156
Showing that they are unable to prove the existence of a creator of the world

THE FIFTH DISCUSSION 170
To show their incapacity to prove God's unity and the impossibility of two necessary existents both without a cause

THE SIXTH DISCUSSION 186
To refute their denial of attributes

THE SEVENTH DISCUSSION 221
To refute their claim that nothing can share with the First its genus, and be differentiated from it through a specific difference, and that with respect to its intellect the division into genus and specific difference cannot be applied to it

THE EIGHTH DISCUSSION 235
To refute their theory that the existence of the First is simple, namely that it is pure existence and that its existence stands in relation to no quiddity and to no essence, but stands to necessary existence as do other beings to their quiddity

THE NINTH DISCUSSION 241
To refute their proof that the First is incorporeal

THE TENTH DISCUSSION 250
To prove their incapacity to demonstrate that the world has a creator and a cause, and that in fact they are forced to admit atheism

THE ELEVENTH DISCUSSION 255
To show the incapacity of those philosophers who believe that the First knows other things besides its own self and that it knows the genera and the species in a universal way, to prove that this is so

THE TWELFTH DISCUSSION 269
About the impotence of the philosophers to prove that God knows Himself

THE THIRTEENTH DISCUSSION 275
To refute those who affirm that God is ignorant of the individual things which are divided in time into present, past, and future

THE FOURTEENTH DISCUSSION 285
To refute their proof that heaven is an animal moving in a circle in obedience to God

THE FIFTEENTH DISCUSSION 293
To refute the theory of the philosophers about the aim which moves heaven

THE SIXTEENTH DISCUSSION 300
To refute the philosophical theory that the souls of the heavens observe all the particular events of this world

ABOUT THE NATURAL SCIENCES 311

THE FIRST DISCUSSION 316
The denial of a logical necessity between cause and effect

THE SECOND DISCUSSION 333
The impotence of the philosophers to show by demonstrative proof that the soul is a spiritual substance

THE THIRD DISCUSSION 356
Refutation of the philosophers' proof for the immortality of the soul

THE FOURTH DISCUSSION 359
Concerning the philosophers' denial of bodily resurrection

APPENDIX: Changes proposed in the Arabic Text 365

INDEX of Proper Names 374

(VOLUME II)

NOTES 1
Index of Proper Names mentioned in the Introduction and in the Notes 207
Index of Subjects mentioned in the Notes 211
Some contradictions in Aristotle's System 215
Arabic–Greek Index to the Notes 216
Greek–Arabic Index to the Notes 218

INTRODUCTION

If it may be said that Santa Maria sopra Minerva is a symbol of our European culture, it should not be forgotten that the mosque also was built on the Greek temple. But whereas in Christian Western theology there was a gradual and indirect infiltration of Greek, and especially Aristotelian ideas, so that it may be said that finally Thomas Aquinas baptized Aristotle, the impact on Islam was sudden, violent, and short. The great conquests by the Arabs took place in the seventh century when the Arabs first came into contact with the Hellenistic world. At that time Hellenistic culture was still alive; Alexandria in Egypt, certain towns in Syria—Edessa for instance—were centres of Hellenistic learning, and in the cloisters of Syria and Mesopotamia not only Theology was studied but Science and Philosophy also were cultivated. In Philosophy Aristotle was still 'the master of those who know', and especially his logical works as interpreted by the Neoplatonic commentators were studied intensively. But also many Neoplatonic and Neopythagorean writings were still known, and also, very probably, some of the old Stoic concepts and problems were still alive and discussed.

The great period of translation of Greek into Arabic, mostly through the intermediary of Christian Syrians, was between the years 750 and 850, but already before that time there was an impact of Greek ideas on Muhammadan theology. The first speculative theologians in Islam are called Mu'tazilites (from about A.D. 723), an exact translation of the Greek word σχισματικοί (the general name for speculative theologians is Mutakallimun, διαλεκτικοί, dialecticians, a name often given in later Greek philosophy to the Stoics). Although they form rather a heterogeneous group of thinkers whose theories are syncretistic, that is taken from different Greek sources with a preponderance of Stoic ideas, they have certain points in common, principally their theory, taken from the Stoics, of the rationality of religion (which is for them identical with Islam), of a *lumen naturale* which burns in the heart of every man, and the optimistic view of a rational God who has created the best of all possible worlds for the greatest good of man who occupies the central place in the universe. They touch upon certain difficult problems that were perceived by the Greeks. The paradoxes of Zeno concerning movement and the infinite divisibility of space and time hold

their attention, and the subtle problem of the status of the non-existent, a problem long neglected in modern philosophy, but revived by the school of Brentano, especially by Meinong, which caused an endless controversy amongst the Stoics, is also much debated by them.

A later generation of theologians, the Ash'arites, named after Al Ash'ari, born A.D. 873, are forced by the weight of evidence to admit a certain irrationality in theological concepts, and their philosophical speculations, largely based on Stoicism, are strongly mixed with Sceptical theories. They hold the middle way between the traditionalists who want to forbid all reasoning on religious matters and those who affirm that reason unaided by revelation is capable of attaining religious truths. Since Ghazali founds his attack against the philosophers on Ash'arite principles, we may consider for a moment some of their theories. The difference between the Ash'arite and Mu'tazilite conceptions of God cannot be better expressed than by the following passage which is found twice in Ghazali (in his *Golden Means of Dogmatics* and his *Vivification of Theology*) and to which by tradition is ascribed the breach between Al Ash'ari and the Mu'tazilites.

'Let us imagine a child and a grown-up in Heaven who both died in the True Faith, but the grown-up has a higher place than the child. And the child will ask God, "Why did you give that man a higher place?" And God will answer, "He has done many good works." Then the child will say, "Why did you let me die so soon so that I was prevented from doing good?" God will answer, "I knew that you would grow up a sinner, therefore it was better that you should die a child." Then a cry goes up from the damned in the depths of Hell, "Why, O Lord, did you not let us die before we became sinners?" '

Ghazali adds to this: 'the imponderable decisions of God cannot be weighed by the scales of reason and Mu'tazilism'.

According to the Ash'arites, therefore, right and wrong are human concepts and cannot be applied to God. 'Cui mali nihil est nec esse potest quid huic opus est dilectu bonorum et malorum?' is the argument of the Sceptic Carneades expressed by Cicero (*De natura deorum*, iii. 15. 38). It is a dangerous theory for the theologians, because it severs the moral relationship between God and man and therefore it cannot be and is not consistently applied by the Ash'arites and Ghazali.

The Ash'arites have taken over from the Stoics their epistemology, their sensationalism, their nominalism, their materialism. Some

details of this epistemology are given by Ghazali in his autobiography: the clearness of representations is the criterion for their truth; the soul at birth is a blank on which the sensations are imprinted; at the seventh year of a man's life he acquires the rational knowledge of right and wrong. Stoic influence on Islamic theology is overwhelming. Of Stoic origin, for instance, are the division of the acts of man into five classes; the importance placed on the motive of an act when judging its moral character; the theory of the two categories of substance and accident (the two other categories, condition and relation, are not considered by the Muslim theologians to pertain to reality, since they are subjective); above all, the fatalism and determinism in Islam which is often regarded as a feature of the Oriental soul. In the Koran, however, there is no definite theory about free will. Muhammad was not a philosopher. The definition of will in man given by the Ash'arites, as the instrument of unalterable fate and the unalterable law of God, is Stoic both in idea and expression. (I have discussed several other theories in my notes.)

Sometimes, however, the theologians prefer to the Stoic view the view of their adversaries. For instance, concerning the discussion between Neoplatonism and Stoicism whether there is a moral obligation resting on God and man relative to animals, Islam answers with the Neoplatonists in the affirmative (Spinoza, that Stoic Cartesian, will give, in his *Ethica*, the negative Stoic answer).

The culmination of the philosophy of Islam was in the tenth and eleventh centuries. This was the age also of the great theologians. It was with Greek ideas, taken in part from Stoics and Sceptics, that the theologians tried to refute the ideas of the philosophers. The philosophers themselves were followers of Aristotle as seen through the eyes of his Neoplatonic commentators. This Neoplatonic interpretation of Aristotle, although it gives a mystical character to his philosophy which is alien to it, has a certain justification in the fact that there are in his philosophy many elements of the theory of his master Plato, which lend themselves to a Neoplatonic conception. Plotinus regarded himself as nothing but the commentator of Plato and Aristotle, and in his school the identity of view of these two great masters was affirmed. In the struggle in Islam between Philosophy and Theology, Philosophy was defeated, and the final blow to the philosophers was given in Ghazali's attack on Philosophy which in substance is incorporated in Averroës' book and which he tries to refute.

Ghazali, who was born in the middle of the eleventh century, is one of the most remarkable and at the same time most enigmatic figures in Islam. Like St. Augustine, with whom he is often compared, he has told us in his autobiography how he had to pass through a period of despair and scepticism until God, not through demonstration but by the light of His grace, had given him peace and certitude. This divine light, says Ghazali, is the basis of most of our knowledge and, he adds, profoundly, one cannot find proofs for the premisses of knowledge; the premisses are there and one looks for the reasons, but they cannot be found. Certitude is reached, he says, not through scholastic reasoning, not through philosophy, but through mystical illumination and the mystical way of life. Still Ghazali is not only a mystic, he is a great dogmatist and moralist. He is regarded as Islam's greatest theologian and, through some of his books, as a defender of Orthodoxy. It is generally believed that the *Tahafut*, the book in which he criticizes Philosophy, was written in the period of his doubts. The book, however, is a Defence of Faith, and though it is more negative than positive, for it aims to destroy and not to construct, it is based on the theories of his immediate predecessors, many of whose arguments he reproduces. Besides, he promises in this book to give in another book the correct dogmatic answers. The treatise to which he seems to refer does not contain anything but the old theological articles of faith and the Ash'arite arguments and solutions. But we should not look for consistency in Ghazali; necessarily his mysticism comes into conflict with his dogmatism and he himself has been strongly influenced by the philosophers, especially by Avicenna, and in many works he comes very near to the Neoplatonic theories which he criticizes. On the whole it would seem to me that Ghazali in his attack on the philosophers has taken from the vast arsenal of Ash'arite dialectical arguments those appropriate to the special point under discussion, regardless of whether they are destructive also of some of the views he holds.

Averroës was the last great philosopher in Islam in the twelfth century, and is the most scholarly and scrupulous commentator of Aristotle. He is far better known in Europe than in the Orient, where few of his works are still in existence and where he had no influence, he being the last great philosopher of his culture. Renan, who wrote a big book about him, *Averroès et l'Averroïsme*, had never seen a line of Arabic by him. Lately some of his works have been edited in Arabic, for instance his *Tahafut al Tahafut*, in a most

exemplary manner. Averroës' influence on European thought during the Middle Ages and the Renaissance has been immense.

The name of Ghazali's book in which he attacks the philosophers is *Tahafut al Falasifa*, which has been translated by the medieval Latin translator as *Destructio Philosophorum*. The name of Averroës' book is *Tahafut al Tahafut*, which is rendered as *Destructio Destructionis* (or *destructionum*). This rendering is surely not exact. The word 'Tahafut' has been translated by modern scholars in different ways, and the title of Ghazali's book has been given as the breakdown, the disintegration, or the incoherence, of the philosophers. The exact title of Averroës' book would be *The Incoherence of the Incoherence*.

In the *Revue des Deux Mondes* there was an article published in 1895 by Ferdinand Brunetière, 'La Banqueroute de la Science', in which he tried to show that the solutions by science, and especially by biology, of fundamental problems, solutions which were in opposition to the dogmas taught by the Church, were primitive and unreasonable. Science had promised us to eliminate mystery, but, Brunetière said, not only had it not removed it but we saw clearly that it would never do so. Science had been able neither to solve, nor even to pose, the questions that mattered: those that touched the origin of man, the laws of his conduct, his future destiny. What Brunetière tried to do, to defend Faith by showing up the audacity of Science in its attempt to solve ultimate problems, is exactly the same as Ghazali tried to do in relation to the pretensions of the philosophers of his time who, having based themselves on reason alone, tried to solve all the problems concerning God and the world. Therefore a suitable title for his book might perhaps be 'The Bankruptcy of Philosophy'.

In the introduction to his book Ghazali says that a group of people hearing the famous names Socrates, Hippocrates, Plato, and Aristotle, and knowing what they had attained in such sciences as Geometry, Logic, and Physics, have left the religion of their fathers in which they were brought up to follow the philosophers. The theories of the philosophers are many, but Ghazali will attack only one, the greatest, Aristotle; Aristotle, of whom it is said that he refuted all his predecessors, even Plato, excusing himself by saying 'amicus Plato, amica veritas, sed magis amica veritas'. I may add that this well-known saying, which is a variant of a passage in Plato's *Phaedo* and in Aristotle's *Nicomachean Ethics*, is found in this form first in Arabic. One of the first European authors who has it in this form

is Cervantes (*Don Quijote*, ii, c. 52). I quote this saying—Ghazali adds—to show that there is no surety and evidence in Philosophy. According to Ghazali, the philosophers claim for their metaphysical proofs the same evidence as is found in Mathematics and Logic. But all Philosophy is based on supposition and opinion. If Metaphysics had the same evidence as Mathematics all philosophers would agree just as well in Philosophy as in Mathematics. According to him the translators of Aristotle have often misunderstood or changed the meaning and the different texts have caused different controversies. Ghazali considers Farabi and Avicenna to be the best commentators on Aristotle in Islam, and it is their theories that he will attack.

Before entering into the heart of the matter I will say a few words about Ghazali's remark that Metaphysics, although it claims to follow the same method as Mathematics, does not attain the same degree of evidence. Neither Aristotle nor his commentators ever asked the question whether there is any difference between the methods of Mathematics and Metaphysics (it is a significant fact that most examples of proof in the *Posterior Analytics* are taken from Mathematics) and why the conclusions reached by Metaphysics seem so much less convincing than those reached by Mathematics. It would seem that Metaphysics, being the basis of all knowledge and having as its subject the ultimate principles of things, should possess, according to Aristotle, the highest evidence and that God, as being the highest principle, should stand at the beginning of the system, as in Spinoza. In fact, Aristotle could not have sought God if he had not found Him. For Aristotle all necessary reasoning is deductive and exclusively based on syllogism. Reasoning—he says—and I think this is a profound and true remark—cannot go on indefinitely. You cannot go on asking for reasons infinitely, nor can you reason about a subject which is not known to you. Reason must come to a stop. There must be first principles which are immediately evident. And indeed Aristotle acknowledges their existence. When we ask, however, what these first principles are, he does not give us any answer but only points out the Laws of Thought as such. But from the Laws of Thought nothing can be deduced, as Aristotle acknowledges himself. As a matter of fact Aristotle is quite unaware of the assumption on which his system is based. He is what philosophers are wont to call nowadays a naïve realist. He believes that the world which we perceive and think about with all it contains has a reality indepen-

dent of our perceptions or our thoughts. But this view seems so natural to him that he is not aware that it could be doubted or that any reason might be asked for it. Now I, for my part, believe that the objectivity of a common world in which we all live and die is the necessary assumption of all reasoning and thought. I believe indeed, with Aristotle, that there are primary assumptions which cannot be deduced from other principles. All reasoning assumes the existence of an objective truth which is sought and therefore is assumed to have an independent reality of its own. Every thinking person is conscious of his own identity and the identity of his fellow beings from whom he accepts language and thoughts and to whom he can communicate his own ideas and emotions. Besides, all conceptual thought implies universality, i.e. belief in law and in objective necessity. I can only infer from Socrates being a man that he is mortal when I have assumed that the same thing (in this case man in so far as he is man) in the same conditions will always necessarily behave in the same way.

In his book Ghazali attacks the philosophers on twenty points. Except for the last two points which are only slightly touched by Averroës, Averroës follows point for point the arguments Ghazali uses and tries to refute them. Ghazali's book is badly constructed, it is unsystematic and repetitive. If Ghazali had proceeded systematically he would have attacked first the philosophical basis of the system of the philosophers—namely their proof for the existence of God, since from God, the Highest Principle, everything else is deduced. But the first problem Ghazali mentions is the philosphers' proof for the eternity of the world. This is the problem which Ghazali considers to be the most important and to which he allots the greatest space, almost a quarter of his book. He starts by saying rather arbitrarily that the philosophers have four arguments, but, in discussing them, he mixes them up and the whole discussion is complicated by the fact that he gives the philosophical arguments and theological counter-arguments in such an involved way that the trend is sometimes hard to follow. He says, for instance, page 3, that to the first arguments of the philosophers there are two objections. The first objection he gives on this page, but the second, after long controversy between the philosophers and theologians, on page 32. I will not follow here Ghazali and Averroës point for point in their discussions but will give rather the substance of their principal arguments (for a detailed discussion I refer to my notes).

The theory of the eternity of the world is an Aristotelian one.

Aristotle was, as he says himself, the first thinker who affirmed that the world in which we live, the universe as an orderly whole, a cosmos, is eternal. All the philosophers before him believed that the world had come into being either from some primitive matter or after a number of other worlds. At the same time Aristotle believes in the finitude of causes. For him it is impossible that movement should have started or can continue by itself. There must be a principle from which all movement derives. Movement, however, by itself is eternal. It seems to me that this whole conception is untenable. If the world is eternal there will be an infinite series of causes and an infinite series of movers; there will be an infinite series, for instance, of fathers and sons, of birds and eggs (the example of the bird and egg is first mentioned in Censorinus, *De die natali*, where he discusses the Peripatetic theory of the eternity of the world), and we will never reach a first mover or cause, a first father or a first bird. Aristotle, in fact, defends the two opposite theses of Kant's first antinomy. He holds at the same time that time and movement are infinite and that every causal series must be finite. The contradiction in Aristotle is still further accentuated in the Muhammadan philosophers by the fact that they see in God, not only as Aristotle did, the First Mover of the movement of the universe, but that they regard Him, under the influence of the Plotinian theory of emanation, as the Creator of the universe from whom the world emanates eternally. However, can the relation between two existing entities *qua* existents be regarded as a causal one? Can there be a causal relation between an eternally unchangeable God and an eternally revolving and changing world, and is it sense to speak of a creation of that which exists eternally? Besides, if the relation between the eternal God and the eternal movement of the world could be regarded as a causal relation, no prior movement could be considered the cause of a posterior movement, and sequences such as the eternal sequence of fathers and sons would not form a causal series. God would not be a first cause but the Only Cause of everything. It is the contradiction in the idea of an eternal creation which forms the chief argument of Ghazali in this book. In a later chapter, for instance, when he refutes Avicenna's proof for God based on the Aristotelian concepts 'necessary by itself', i.e. logical necessity, and 'necessary through another', i.e. ontological necessity, in which there is the usual Aristotelian confusion of the logical with the ontological, Ghazali's long argument can be reduced to the assertion that once the possibility of

an infinite series of causes is admitted, there is no sense in positing a first cause.

The first argument is as follows. If the world had been created, there must have been something determining its existence at the moment it was created, for otherwise it would have remained in the state of pure possibility it was in before. But if there was something determining its existence, this determinant must have been determined by another determinant and so on *ad infinitum*, or we must accept an eternal God in whom eternally new determinations may arise. But there cannot be any new determinations in an eternal God.

The argument in this form is found in Avicenna, but its elements are Aristotelian. In Cicero's *Academics* we have a fragment of one of Aristotle's earlier and more popular writings, the lost dialogue *De philosophia*, in which he says that it is impossible that the world could ever have been generated. For how could there have been a new decision, that is a new decision in the mind of God, for such a magnificent work? St. Augustine knows this argument from Cicero and he too denies that God could have a *novum consilium*. St. Augustine is well aware of the difficulty, and he says in his *De civitate dei* that God has always existed, that after a certain time, without having changed His will, He created man, whom He had not wanted to create before, this is indeed a fact too profound for us. It also belongs to Aristotle's philosophy that in all change there is a potentiality and all potentiality needs an actualizer which exists already. In the form this argument has in Avicenna it is, however, taken from a book by a late Greek Christian commentator of Aristotle, John Philoponus, *De aeternitate mundi*, which was directed against a book by the great Neoplatonist Proclus who had given eighteen arguments to prove the eternity of the world. Plato himself believed in the temporal creation of the world not by God Himself but by a demiurge. But later followers of Plato differed from him on this point. Amongst the post-Aristotelian schools only the Stoics assumed a periodical generation and destruction of the world. Theophrastus had already tried to refute some of the Stoic arguments for this view, and it may well be that John Philoponus made use of some Stoic sources for his defence of the temporality of the world.

The book by Proclus is lost, but John Philoponus, who as a Christian believes in the creation of the world, gives, before refuting them, the arguments given by Proclus. The book by Philoponus was translated into Arabic and many of its arguments are reproduced in

the Muhammadan controversies about the problem (arguments for the temporal creation of the world were also given by Philoponus in a work against Aristotle's theory of the eternity of the world, arguments which are known to us through their quotation and refutation by Simplicius in his commentary on *Physics* viii; one of these arguments by Philoponus was well known to the Arabs and is also reproduced by Ghazali, see note 3. 3). The argument I have mentioned is the third as given by Proclus. Philoponus' book is extremely important for all medieval philosophy, but it has never been translated into a modern language and has never been properly studied. On the whole the importance of the commentators of Aristotle for Arabic and medieval philosophy in general has not yet been sufficiently acknowledged.

To this argument Ghazali gives the following answer, which has become the classic reply for this difficulty and which has been taken from Philoponus. One must distinguish, says Philoponus, between God's eternally willing something and the eternity of the object of His Will, or, as St. Thomas will say later, 'Deus voluit ab aeterno mundus esset sed non ut ab aeterno esset'. God willed, for instance, that Socrates should be born before Plato and He willed this from eternity, so that when it was time for Plato to be born it happened. It is not difficult for Averroës to refute this argument. In willing and doing something there is more than just the decision that you will do it. You can take the decision to get up tomorrow, but the actual willing to get up can be done only at the moment you do it, and there can be no delay between the cause and the effect. There must be added to the decision to get up the impulse of the will to get up. So in God there would have to be a new impulse, and it is just this newness that has to be denied. But, says Averroës, the whole basis of this argument is wrong for it assumes in God a will like a human will. Desire and will can be understood only in a being that has a need; for the Perfect Being there can be no need, there can be no choice, for when He acts He will necessarily do the best. Will in God must have another meaning than human will.

Averroës therefore does not explicitly deny that God has a will, but will should not be taken in its human sense. He has much the same conception as Plotinus, who denies that God has the power to do one of two contraries (for God will necessarily always choose the best, which implies that God necessarily will always do the best, but this in fact annuls the ideas of choice and will), and who regards the world as produced by natural necessity. Aristotle also held that for the

Perfect Being no voluntary action is possible, and he regards God as in an eternal blissful state of self-contemplation. This would be a consequence of His Perfection which, for Averroës at least, involves His Omniscience. For the Perfect the drama of life is ended: nothing can be done any more, no decision can be taken any more, for decisions belong to the condition of man to whom both knowledge and ignorance are given and who can have an hypothetical knowledge of the future, knowing that on his decisions the future may depend and to whom a sure knowledge of the future is denied. But an Omniscient Being can neither act nor decide; for Him the future is irremediable like the past and cannot be changed any more by His decisions or actions. Paradoxically the Omnipotent is impotent. This notion of God as a Self-contemplating Being, however, constitutes one of the many profound contradictions in Aristotle's system. And this profound contradiction is also found in all the works of Aristotle's commentators. One of Aristotle's proofs for the existence of God—and according to a recent pronouncement of the Pope, the most stringent —is the one based on movement. There cannot be an infinite series of movers; there must be a Prime Agent, a Prime Mover, God, the originator of all change and action in the universe. According to the conception of God as a Self-Contemplating Being, however, the love for God is the motive for the circular motion of Heaven. God is not the ultimate Agent, God is the ultimate Aim of desire which inspires the Heavens to action. It is Heaven which moves itself and circles round out of love for God. And in this case it is God who is passive; the impelling force, the efficient cause, the spring of all action lies in the world, lies in the souls of the stars.

Let us now return to Ghazali. We have seen that his first argument is not very convincing, but he now gives us another argument which the Muhammadan theologians have taken from John Philoponus and which has more strength. It runs: if you assume the world to have no beginning in time, at any moment which we can imagine an infinite series must have been ended. To give an example, every one of us is the effect of an infinite series of causes; indeed, man is the finite junction of an infinite past and an infinite future, the effect of an infinite series of causes, the cause of an infinite series of effects. But an infinite series cannot be traversed. If you stand near the bed of a river waiting for the water to arrive from an infinitely distant source you will never see it arriving, for an infinite distance cannot be passed. This is the argument given by Kant in the thesis of his

first antimony. The curious fact is that the wording in Kant is almost identical with that of John Philoponus.

The answers Averroës gives are certainly not convincing. He repeats the Aristotelian dictum that what has no beginning has no end and that therefore there is never an end of time, and one can never say that at any moment an infinite time is ended: an infinite time is never ended. But this is begging the question and is surely not true, for there are certainly finite times. He denies that an infinite time involves an infinite causal series and the negation of a First Cause. The series involved is but a temporal sequence, causal by accident, since it is God who is its essential cause. Averroës also bases his answer on the Aristotelian theory that in time there is only a succession. A simultaneous infinite whole is denied by Aristotle and therefore, according to Aristotle, the world must be limited in space; but in time, according to him, there is never a whole, since the past is no longer existent and the future not yet.

But the philosophers have a convincing argument for the eternity of the world. Suppose the world had a beginning, then before the world existed there was empty time; but in an empty time, in pure emptiness, there cannot be a motive for a beginning and there could be nothing that could decide God to start His creation. This is Kant's antithesis of his first antinomy. It is very old and is given by Aristotle, but it is already found in the pre-Socratic philosopher Parmenides. Ghazali's answer is that God's will is completely undetermined. His will does not depend on distinctions in outside things, but He creates the distinctions Himself. The idea of God's creative will is of Stoic origin. According to the Neoplatonic conception God's knowledge is creative. We know because things are; things are because God knows them. This idea of the creative knowledge of God has a very great diffusion in philosophy (just as our bodies live by the eternal spark of life transmitted to us by our ancestors, so we rekindle in our minds the thoughts of those who are no more); it is found, for instance, in St. Augustine, Thomas Aquinas, Spinoza, and Kant—who calls it *intellektuelle Anschauung*, intellectual intuition, and it is also used by the Muhammadan philosophers when it suits them. Against Ghazali's conception, however, Averroës has the following argument: If God creates the world arbitrarily, if His Will establishes the distinctions without being determined by any reason, neither wisdom nor goodness can be attributed to Him. We have here a difficulty the Greeks had seen already. Either God is beyond

the laws of thought and of morals and then He is neither good nor wise, or He Himself stands under their dominion and then He is not omnipotent.

Another argument for the eternity of the world is based on the eternity of time: God cannot have a priority to time, as the theologians affirm, because priority implies time and time implies movement. For the philosophers God's priority to the world consists solely in His being its simultaneous cause. Both parties, however, seem to hold that God's existence does not imply time, since He exists in timeless eternity. But in this case, what neither of the parties has seen, no causal relation between God and the world can exist at all, since all causation implies a simultaneous time.

We come now to the most important argument which shows the basic difference between the philosophical and theological systems. For Aristotle the world cannot have come to be because there is no absolute becoming. Everything that becomes comes from something. And, as a matter of fact, we all believe this. We all believe more or less unconsciously (we are not fully aware of our basic principles: a basement is always obscure) in the dictum *rien ne se crée, rien ne se perd.* We believe that everything that comes to be is but a development, an evolution, without being too clear about the meaning of these words (evolution means literally 'unrolling', and Cicero says that the procession of events out of time is like the uncoiling of a rope—*quasi rudentis explicatio*), and we believe that the plant lies in the seed, the future in the present. For example: when a child is born we believe it to have certain dispositions; it may have a disposition to become a musician, and when all the conditions are favourable it will become a musician. Now, according to Aristotle, becoming is nothing but the actualization of a potentiality, that is the becoming actual of a disposition. However, there is a difficulty here. It belongs to one of the little ironies of the history of philosophy that Aristotle's philosophy is based on a concept, i.e. potentiality, that has been excluded by a law that he was the first to express consciously. For Aristotle is the first to have stated as the supreme law of thought (or is it a law of reality?) that there is no intermediary between being and non-being. But the potential, i.e. the objective possible, is such an intermediary; it is namely something which is, still is not yet. Already the Eleatics had declared that there is no becoming, either a thing is or it is not. If it is, it need not become. If it is not—out of nothing nothing becomes. Besides, there is another difficulty which the Megarians have shown.

You say that your child has a disposition to become a musician, that he can become a musician, but if he dies as a child, or when conditions are unfavourable, he cannot become a musician. He can only become one when all the conditions for his being a musician are fulfilled. But in that case it is not possibly that he will be a musician, necessarily he will be one. There is in fact no possibility of his being a musician before he actually is one. There is therefore no potentiality in nature and no becoming of things out of potencies. Things are or are not. This Megarian denial of potentiality has been taken over by the Ash'arites, and Ghazali in this book is on the whole, although not consistently, in agreement with them. I myself regard this problem as one of the cruces of philosophy. The Ash'arites and Ghazali believed, as the Megarians did, that things do not become and that the future does not lie in the present; every event that occurs is new and unconnected with its predecessor. The theologians believed that the world is not an independent universe, a self-subsistent system, that develops by itself, has its own laws, and can be understood by itself. They transferred the mystery of becoming to the mystery of God, who is the cause of all change in the world, and who at every moment creates the world anew. Things are or are not. God creates them and annihilates them, but they do not become out of each other, there is no passage between being and non-being. Nor is there movement, since a thing that moves is neither here nor there, since it moves—what we call movement is *being* at rest at different space-atoms at different time-atoms. It is the denial of potentiality, possibility *in rerum natura*, that Ghazali uses to refute the Aristotelian idea of an eternal matter in which the potentialities are found of everything that can or will happen. For, according to Aristotle, matter must be eternal and cannot have become, since it is, itself, the condition for all becoming.

It may be mentioned here that the modern static theory of movement is akin to the Megarian–Ash'arite doctrine of the denial of movement and becoming. Bertrand Russell, for instance, although he does not accept the Megarian atomic conception, but holds with Aristotle that movement and rest take place in time, not in the instant, defines movement as *being* at different places at different times. At the same time, although he rejects the Megarian conception of 'jumps', he affirms that the moving body always passes from one position to another by gradual transition. But 'passing' implies, just as much as 'jumping', something more than mere being, namely, the

movement which both theories deny and the identity of the moving body.

On the idea of possibility another argument for the eternity of the world is based. It is affirmed that if the world had been created an infinite number of possibilities of its creation, that is, an eternal duration of its possibility, would have preceded it. But nothing possible can be eternal, since everything possible must be realized. The idea that everything possible has to be realized is found in Aristotle himself, who says that if there could be an eternal possible that were not realized, it would be impossible, not possible, since the impossible is that which will never be realized. Aristotle does not see that this definition is contrary to the basic idea of his own philosophy—the reality of a possibility which may or may not become real—and that by declaring that the possible will have to happen he reduces it to a necessity, and by admitting that everything that happens had to happen he denies that the possibility of its not happening could precede it, i.e. he accepts, in fact, the Megarian conception of possibility which he himself had tried to refute. Averroës, who agrees with his master on this point, is not aware either of the implication of the definition. On the other hand, the Ash'arites, notwithstanding their denial of potentiality, maintain that for God everything is possible, a theory which implies objective possibility (the same inconsistency was committed by the Stoics). Both philosophers and theologians, indeed, hold about this difficult problem contradictory theories, and it is therefore not astonishing that Ghazali's and Averroës' discussion about it is full of confusion (for the details I refer to my notes).

In the second chapter Ghazali treats the problem of the incorruptibility of the world. As Ghazali says himself, the problem of the incorruptibility of the world is essentially the same as that of its being uncreated and the same arguments can be brought forward. Still, there is less opposition amongst the theologians about its incorruptibility than about its being uncreated. Some of the Mu'tazilites argued, just as Thomas Aquinas was to do later, that we can only know through the Divine Law that this world of ours will end and there is no rational proof for its annihilation. Just as a series of numbers needs a first term but no final term, the beginning of the world does not imply its end. However, the orthodox view is that the annihilation of the world, including Heaven and Hell, is in God's power, although this will not happen. Still, in the corruptibility of

the world there is a new difficulty for the theologians. If God destroys the world He causes 'nothingness', that is, His act is related to 'nothing'. But can an act be related to 'nothing'? The question as it is posed seems to rest on a confusion between action and effect but its deeper sense would be to establish the nature of God's action and the process by which His creative and annihilating power exercises itself. As there cannot be any analogy with the physical process through which our human will performs its function, the mystery of His creative and annihilating action cannot be solved and the naïve answers the theologians give satisfy neither Averroës nor Ghazali himself. Averroës argues that there is no essential difference between production and destruction and, in agreement with Aristotle, he affirms that there are three principles for them: form, matter, and privation. When a thing becomes, its form arises and its privation disappears; when it is destroyed its privation arises and its form disappears, but the substratum of this process, matter, remains eternally. I have criticized this theory in my notes and will only mention here that for Aristotle and Averroës this process of production and destruction is eternal, circular, and reversible. Things, however, do not revolve in an eternal cycle, nor is there an eternal return as the Stoics and Nietzsche held. Inexorably the past is gone. Every 'now' is new. Every flower in the field has never been, the up-torn trees are not rooted again. 'Thou'll come no more, Never, never, never, never, never!' Besides, Averroës, holding as he does that the world is eternally produced out of nothing, is inconsistent in regarding with Aristotle production and destruction as correlatives.

In the third chapter Ghazali maintains that the terms acting and agent are falsely applied to God by the philosophers. Acting, according to him, can be said only of a person having will and choice. When you say that fire burns, there is here a causal relation, if you like, but this implies nothing but a sequence in time, just as Hume will affirm later. So when the philosophers say that God's acting is like the fire's burning or the sun's heating, since God acts by natural necessity, they deny, according to Ghazali, His action altogether. Real causation can only be affirmed of a willing conscious being. The interesting point in this discussion is that, according to the Ash'arites and Ghazali, there is no causation in this world at all, there is only one extra-mundane cause which is God. Even our acts which depend on our will and choice are not, according to the Ash'arites, truly performed by ourselves. We are only the instru-

ments, and the real agent is God. But if this is true, how can we say that action and causation depend on will and choice? How can we come to the idea of any causal action in God depending on His Will if we deny generally that there is a causal relation between will and action? The same contradiction is found in modern philosophy in Mach. Mach holds that to speak of causation or action in material things—so to say that fire burns—is a kind of fetishism or animism, i.e. that we project our will and our actions into physical lifeless things. However, at the same time he, as a follower of Hume, says that causation, even in acts caused by will, is nothing but a temporal sequence of events. He denies causation even in voluntary actions. Therefore it would follow that the relation of willing and acting is not different from the relation of fire and burning and that there cannot be any question of fetishism or animism. According to such a theory there is no action at all in the universe but only a sequence of events.

Then, after a second argument by which Ghazali sets out to show that an eternal production and creation are contradictions in terms, since production and creation imply the generation of something after its non-existence, he directs a third argument against the Neoplatonic theory, held by the philosophers, of the emanation of the world from God's absolute Oneness.

Plotinus' conception of God is prompted by the problem of plurality and relation. All duality implies a relation, and every relation establishes a new unity which is not the simple addition of its terms (since every whole is more than its parts) and violates therefore the supreme law of thought that a thing is what it is and nothing else. Just as the line is more than its points, the stone more than its elements, the organism transcending its members, man, notwithstanding the plurality of his faculties, an identical personality, so the world is an organized well-ordered system surpassing the multitude of the unities it encloses. According to Plotinus the Force binding the plurality into unity and the plurality of unities into the all-containing unit of the Universe is the Archetype of unity, the ultimate, primordial. Monad, God, unattainable in His supreme Simplicity even for thought. For all thought is relational, knitting together in the undefinable unity of a judgement a subject and a predicate. But in God's absolute and highest Unity there is no plurality that can be joined, since all joining needs a superior joining unit. Thus God must be the One and the Lone, having no attribute, no genus, no species, no universal that He can share with any

creatures of the world. Even existence can be only referred to Him when it expresses not an attribute, but His very Essence. But then there is no bridge leading from the stable stillness of His Unity to the changing and varied multiplicity of the world; all relation between Him and the world is severed. If the One is the truly rational, God's rationality can be obtained only by regarding His relation to the world as irrational, and all statements about Him will be inconsistent with the initial thesis. And if God is unattainable for thought, the very affirmation of this will be self-contradictory.

Now, the philosophers in Islam hold with Plotinus that although absolutely positive statements are not admissible about God, the positive statements made by them can be all reduced to negative affirmations (with the sole exception, according to Averroës, of His possessing intellect) and to certain relative statements, for neither negations nor *external* relations add anything to His essence.

In this and several following chapters Ghazali attacks the philosophers from two sides: by showing up the inanity of the Plotinian conception of God as pure unity, and by exposing their inconsistency in attributing to Him definite qualities and regarding Him as the source of the world of variety and plurality.

The infinite variety and plurality of the world does not derive directly from God according to the philosophers in Islam, who combine Aristotle's astronomical view of animate planets circling round in their spheres with the Neoplatonic theory of emanation, and introduce into the Aristotelian framework Proclus' conception of a triadic process, but through a series of immaterial mediators. From God's single act—for they with Aristotle regard God as the First Agent—only a single effect follows, but this single effect, the supramundane Intellect, develops in itself a threefoldness through which it can exercise a threefold action. Ghazali objects in a long discussion that if God's eternal action is unique and constant, only one single effect in which no plurality can be admitted will follow (a similar objection can be directed against Aristotle, who cannot explain how the plurality and variety of transitory movements can follow from one single constant movement). The plurality of the world according to Ghazali cannot be explained through a series of mediators. Averroës, who sometimes does not seem very sure of the validity of mediate emanation, is rather evasive in his answer on this point.

In a series of rather intricate discussions which I have tried to elucidate in my notes, Ghazali endeavours to show that the proofs of

the philosophers for God's uniqueness, for their denial of His attributes, for their claims that nothing can share with Him His genus and species, that He is pure existence which stands in no relation to an essence, and that He is incorporeal, are all vain. The leading idea of the philosophers that all plurality needs a prior joining principle, Ghazali rejects, while Averroës defends it. Why—so Ghazali asks, for instance—since the essence in temporal things is not the cause of their existence, should this not be the case in the Eternal? Or why should body, although it is composite according to the philosophers, not be the First Cause, especially as they assume an eternal body, since it is not impossible to suppose a compound without a composing principle? From the incorporeality of God, the First Principle, Avicenna had tried to infer, through the disjunction that everything is either matter or intellect, that He is intellect (since the philosophers in Islam hold with Aristotle and in opposition to Plotinus that God possesses self-consciousness). Ghazali does not admit this disjunction and, besides, argues with Plotinus that self-consciousness implies a subject and an object, and therefore would impede the philosophers' thesis of God's absolute unity.

The Muhammadan philosophers, following Aristotle's Neoplatonic commentators, affirm that God's self-knowledge implies His knowledge of all universals (a line of thought followed, for instance, by Thomas Aquinas and some moderns like Brentano). In man this knowledge forms a plurality, in God it is unified. Avicenna subscribes to the Koranic words that no particle in Heaven or Earth escapes God's knowledge, but he holds, as Porphyry had done before, that God can know the particular things only in a universal way, whatever this means. Ghazali takes it to mean that God, according to Avicenna, must be ignorant of individuals, a most heretical theory. For Averroës God's knowledge is neither universal nor particular, but transcending both, in a way unintelligible to the human mind.

One thing, however, God cannot know according to Avicenna (and he agrees here with Plato's *Parmenides*) and that is the passing of time, for in the Eternal no relation is possible to the fleeting 'now'. There are two aspects of time: the sequence of anteriority and posteriority which remains fixed for ever, and the eternal flow of the future through the present into the past. It will be eternally true that I was healthy before I sickened and God can know its eternal truth. But in God's timeless eternity there can be no 'now' simultaneous with the trembling present in which we humans live and change and die,

there is no 'now' in God's eternity in which He can know that I am sickening now. In God's eternal stillness the fleeting facts and truths of human experience can find no rest. Ghazali objects, erroneously, I think, that a change in the object of thought need not imply a change in the subject of consciousness.

In another chapter Ghazali refutes the philosophers' proof that Heaven is animated. He does not deny its possibility, but declares that the arguments given are insufficient. He discusses also the view that the heavens move out of love for God and out of desire to assimilate themselves to Him; and he asks the pertinent question—already posed by Theophrastus in his *Metaphysics*, but which scandalizes Averroës by its prosaicness—why it is meritorious for them to circle round eternally and whether eternal rest would not be more appropriate for them in their desire to assimilate themselves to God's eternal stability.

In the last chapter of this part Ghazali examines the philosophers' symbolical interpretation of the Koranic entities 'The Pen' and 'The Tablet' and their theories about dreams and prophecy. It is interesting to note that, although he refutes them here, he largely adopts them in his own *Vivification of Theology*.

In the last part of his book Ghazali treats the natural sciences. He enumerates them and declares that there is no objection to them according to religion except on four points. The first is that there exists a logical nexus between cause and effect; the second, the self-subsistent spirituality of the soul; the third, the immortality of this subsistent soul; the fourth, the denial of bodily resurrection. The first, that there exists between cause and effect a logical necessity, has to be contested according to Ghazali, because by denying it the possibility of miracles can be maintained. The philosophers do not deny absolutely the possibility of miracles. Muhammad himself did not claim to perform any miracles and Hugo Grotius tried to prove the superiority of Christianity over Islam by saying 'Mahumetis se missum ait non cum miraculis sed cum armis'. In later times, however, Muhammad's followers ascribed to him the most fantastic miracles, for instance the cleavage of the moon and his ascension to Heaven. These extravagant miracles are not accepted by the philosophers. Their theory of the possibility of miracles is based on the Stoic–Neoplatonic theory of 'Sympathia', which is that all parts of the world are in intimate contact and related. In a little treatise of Plutarch it is shown how bodily phenomena are influenced by

suggestion, by emotion and emotional states, and it is claimed by him, and later also by Plotinus, that the emotions one experiences cannot only influence one's own body but also other bodies, and that one's soul can exercise an influence on other bodies without the intermediary of any bodily action. The phenomena of telepathy, for instance the fascination which a snake has on other animals, they explained in this way. Amulets and talismans can receive through psychological influences certain powers which can be realized later. This explanation of occult phenomena, which is found in Avicenna's *Psychology*, a book translated in the Middle Ages, has been widely accepted (for instance, by Ghazali himself in his *Vivification of Theology*), and is found in Thomas Aquinas and most of the writers about the occult in the Renaissance, for instance Heinricus Cornelius Agrippa, Paracelsus, and Cardanus. It may be mentioned here that Avicenna gives as an example of the power of suggestion that a man will go calmly over a plank when it is on the ground, whereas he will hesitate if the plank be across an abyss. This famous example is found in Pascal's *Pensées*, and the well-known modern healer, Coué, takes it as his chief proof for the power of suggestion. Pascal has taken it from Montaigne, Montaigne has borrowed it from his contemporary the great doctor Pietro Bairo, who himself has a lengthy quotation from the *Psychology* of Avicenna. Robert Burton in his *Anatomy of Melancholy* also mentions it. In the Middle Ages this example is found in Thomas Aquinas. Now the philosophers limit the possibility of miracles only to those that can be explained by the power of the mind over physical objects; for instance, they would regard it as possible that a prophet might cause rain to fall or an earthquake to take place, but they refuse to accept the more extravagant miracles I have mentioned as authentic.

The theologians, however, base their theory of miracles on a denial of natural law. The Megarian–Ash'arite denial of potentiality already implies the denial of natural law. According to this conception there is neither necessity nor possibility *in rerum natura*, they are or they are not, there is no nexus between the phenomena. But the Greek Sceptics also deny the rational relation between cause and effect, and it is this Greek Sceptical theory which the Ash'arites have copied, as we can see by their examples. The theory that there is no necessary relation between cause and effect is found, for instance, in Galen. Fire burns but there is, according to the Greek Sceptics, no necessary relation between fire and burning. Through seeing this

happen many times we assume that it will happen also in the future, but there is no necessity, no absolute certainty. This Sceptical theory is quasi-identical with the theory of Hume and is based on the same assumptions, that all knowledge is given through sense-impression; and since the idea of causation cannot be derived from sense experience it is denied altogether. According to the theory of the theologians, God who creates and re-creates the universe continually follows a certain habit in His creation. But He can do anything He desires, everything is possible for Him except the logically impossible; therefore all logically possible miracles are allowed. One might say that, for the theologians, all nature is miraculous and all miracles are natural. Averroës asks a good question: What is really meant by habit, is it a habit in man or in nature? I do not know how Hume would answer this question. For if causation is a habit in man, what makes it possible that such a habit can be formed? What is the objective counterpart of these habits? There is another question which has been asked by the Greek opponents of this theory, but which is not mentioned by Averroës: How many times must such a sequence be observed before such a habit can be formed? There is yet another question that might be asked: Since we cannot act before such a habit is formed—for action implies causation—what are we doing until then? What, even, is the meaning of 'I act' and 'I do'? If there is nothing in the world but a sequence of events, the very word 'activity' will have no sense, and it would seem that we would be doomed to an eternal passivity. Averroës' answer to this denial of natural law is that universals themselves imply already the idea of necessity and law. I think this answer is correct. When we speak, for instance, of wood or stone, we express by those words an hypothetical necessity, that is, we mean a certain object, which in such-and-such circumstances will necessarily behave in a certain way—that the behaviour of wood, for example, is based on its nature, that is, on the potentialities it has.

I may remark here that it seems to me probable that Nicholas of Autrecourt, 'the medieval Hume', was influenced by Ghazali's Ash'arite theories. He denies in the same way as Ghazali the logical connexion between cause and effect: 'ex eo quod aliqua res est cognita esse, non potest evidenter evidentia reducta in primum principium vel in certitudinem primi principii inferri, quod alia res sit' (cf. Lappe, 'Nicolaus von Autrecourt', *Beitr. z. Gesch. d. Phil. d. M.* B.vi, H.2, p. 11); he gives the same example of *ignis* and *stupa*, he

seems to hold also the Ash'arite thesis of God as the sole cause of all action (cf. op. cit., p. 24), and he quotes in one place Ghazali's Metaphysics (cf. N. of Autrecourt, 'Exigit ordo executionis', in *Mediaeval Studies*, vol. i, ed. by J. Reginald O'Donnell, Toronto, 1931, p. 208). Now Nicholas's works were burnt during his lifetime in Paris in 1347, whereas the Latin translation of the *Tahafut al Tahafut* by Calo Calonymus was terminated in Arles in 1328.

The second point Ghazali wants to refute are the proofs for the substantiality and the spirituality of the soul as given by the philosophers. He himself does not affirm that the soul is material, and as a matter of fact he holds, in other books, the contrary opinion, but the Ash'arites largely adopted the Stoic materialism. The ten arguments of the philosophers for the spirituality of the soul derive all from arguments given by the Greeks. It would seem to me that Ghazali's arguments for the soul's materiality may be based on the Stoic answers (which have not come down to us) against the proofs of Aristotle and the later Platonists for the immateriality of the soul. There is in the whole discussion a certain confusion, partly based on the ambiguity of the word 'soul'. The term 'soul' both in Greek and Arabic can also mean 'life'. Plants and animals have a 'soul'. However, it is not affirmed by Aristotle that life in plants and animals is a spiritual principle. 'Soul' is also used for the rational part, the thinking part, of our consciousness. It is only this thinking part, according to Aristotle, that is not related to or bound up with matter; sensation and imagination are localized in the body, and it is only part of our thinking soul that seems to possess eternity or to be immortal. Now, most of the ten arguments derive from Aristotle and mean only to prove that the thinking part of our soul is incorporeal. Still the Muhammadan philosophers affirm with Plato and Plotinus that the whole soul is spiritual and incorruptible, and that the soul is a substance independent of the body, although at the same time they adopt Aristotle's physiological explanations of all the non-rational functions of the soul and accept Aristotle's definition of the 'soul' as the first entelechy of an organic body. On the other hand, the Muhammadan philosophers do not admit the Platonic theory of the pre-existence of the soul. Aristotle's conception of a material and transitory element in the soul and an immaterial and immortal element destroys all possibility of considering human personality as a unity. Although he reproaches Plato with regarding the human soul as a plurality, the same reproach can be applied to himself.

Neither the Greek nor the Muhammadan philosophers have ever been able to uphold a theory that does justice to the individuality of the human personality. That it is my undefinable ego that perceives, represents, wills, and thinks, the mysterious fact of the uniqueness of my personality, has never been apprehended by them. It is true that there is in Aristotle's psychology a faint conception of a functional theory of our conscious life, but he is unable to harmonize this with his psycho-physiological notions.

I have discussed in my notes the ten arguments and will mention here only two because of their importance. Ghazali gives one of these arguments in the following form: How can man's identity be attributed to body with all its accidents? For bodies are continually in dissolution and nutrition replaces what is dissolved, so that when we see a child, after separation from its mother's womb, fall ill a few times, become thin and then fat again, and grow up, we may safely say that after forty years no particle remains of what there was when its mother was delivered of it. Indeed, the child began its existence out of parts of the sperm alone, but nothing of the particles of the sperm remains in it; no, all this is dissolved and has changed into something else and then this body has become another. Still we say that the identical man remains and his notions remain with him from the beginning of his youth although all bodily parts have changed, and this shows that the soul has an existence outside the body and that the body is its organ. Now the first part of this argument, that all things are in a state of flux and that of the bodily life of man no part remains identical, is textually found in Montaigne's *Apology of Raymond de Sebond*. Montaigne has taken it from Plutarch, and the Arabic philosophers may have borrowed it from the same source from which Plutarch has taken it. The argument of the philosophers that matter is evanescent, but the soul a stable identity, which is also given by the Christian philosopher Nemesius in his *De natura hominis* (a book translated into Arabic), who ascribes it to Ammonius Saccas and Numenius, is basically Platonic and Neoplatonic, and strangely enough, although he refutes it here, it is adduced by Ghazali himself in his *Vivification of Theology*. Socrates says in the Platonic dialogue *Cratylus*: 'Can we truly say that there is knowledge, Cratylus, if all things are continually changing and nothing remains? For knowledge cannot continue unless it remains and keeps its identity. But if knowledge changes its very essence, it will lose at once its identity and there will be no knowledge.' Plotinus (*Enn.* iv. 7. 3) argues that

matter, in its continual changing, cannot explain the identity of the soul. And he says in a beautiful passage (*Enn.* iv. 7. 10) the idea of which Avicenna has copied:

'One should contemplate the nature of everything in its purity, since what is added is ever an obstacle to its knowledge. Contemplate therefore the soul in its abstraction or rather let him who makes this abstraction contemplate himself in this state and he will know that he is immortal when he will see in himself the purity of the intellect, for he will see his intellect contemplate nothing sensible, nothing mortal, but apprehending the eternal through the eternal.'

This passage bears some relation to Descartes's dictum *cogito ergo sum*, but whereas Plotinus affirms the self-consciousness of a stable identity, Descartes states only that every thought has a subject, an ego. Neither the one, nor the other shows that this subject is my ego in the sense of my undefinable unique personality, my awareness who I am: that I am, for instance, John and not Peter, my consciousness of the continuity of my identity from birth to death, my knowledge that at the same time I am master and slave of an identical body, whatever the changes may be in that body, and that as long as I live I am a unique and an identical whole of body and soul. Plautus' Sosia, who was not a philosopher, expresses himself (*Amphitruo*, line 447) in almost the same way as Descartes—'sed quom cogito, equidem certo idem sum qui fui semper'—but the introduction of the words *semper* and *idem* renders the statement fallacious; from mere consciousness the lasting identity of my personality cannot be inferred.

Ghazali answers this point by saying that animals and plants also, notwithstanding that their matter is continually changing, preserve their identity, although nobody believes that this identity is based on a spiritual principle. Averroës regards this objection as justified.

The second argument is based on the theory of universals. Since thought apprehends universals which are not in a particular place and have no individuality, they cannot be material, since everything material is individual and is in space. Against this theory of universals Ghazali develops, under Stoic influence, his nominalistic theory which is probably the theory held by the Ash'arites in general. This theory is quasi-identical with Berkeley's nominalistic conception and springs from the same assumption that thinking is nothing but the having of images. By a strange coincidence both Ghazali and Berkeley give

the example of a hand: when we have an idea of a hand as a universal, what really happens is that we have a representation of a particular hand, since there are no universals. But this particular hand is capable of representing for us any possible hand, just as much a big black hand as a small white one. The fallacy of the theory lies, of course, in the word 'representing', which as a matter of fact assumes what it tended to deny, namely, that we can think of a hand in general which has neither a particular shape, nor a particular colour, nor is localized in space.

The next point Ghazali tries to refute is the argument of the philosophers for the immortality of the soul. According to the philosophers, the fact that it is a substance independent of a body and is immaterial shows that a corruption of the body cannot affect it. This, as a matter of fact, is a truism, since the meaning of substantiality and immateriality for the philosophers implies already the idea of eternity. On the other hand, if the soul is the form of the body, as is also affirmed by them, it can only exist with its matter and the mortality of its body would imply its own mortality, as Ghazali rightly points out. The Arabic philosophers through their combination of Platonism and Aristotelianism hold, indeed, at the same time three theories inconsistent with each other, about the relation of body and soul: that the soul is the form of the body, that the soul is a substance, subsistent by itself and immortal, and that the soul after death takes a pneumatic body (a theory already found in Porphyry). Besides, their denial of the Platonic idea of pre-existence of the soul vitiates their statement that the soul is a substance, subsistent by itself, that is, eternal, ungenerated, and incorruptible. Although Averroës in his whole book tries to come as near to the Aristotelian conception of the soul as possible, in this chapter he seems to adopt the eschatology of the late Greek authors. He allows to the souls of the dead a pneumatic body and believes that they exist somewhere in the sphere of the moon. He also accepts the theory of the *Djinn*, the equivalent of the Greek *Daimones*. What he rejects, and what the philosophers generally reject, is the resurrection of the flesh.

In his last chapter Averroës summarizes his views about religion. There are three possible views. A Sceptical view that religion is opium for the people, held by certain Greek rationalists; the view that religion expresses Absolute Truth; and the intermediate view, held by Averroës, that the religious conceptions are the symbols of a higher philosophical truth, symbols which have to be taken for reality

itself by the non-philosophers. For the unphilosophical, however, they are binding, since the sanctity of the State depends on them.

When we have read the long discussions between the philosophers and theologians we may come to the conclusion that it is sometimes more the formula than the essence of things which divides them. Both philosophers and theologians affirm that God creates or has created the world. For the philosophers, since the world is eternal, this creation is eternal. Is there, however, any sense in calling created what has been eternally? For the theologians God is the creator of everything including time, but does not the term 'creation' assume already the concept of time? Both the philosophers and theologians apply to God the theory that His will and knowledge differ from human will and knowledge in that they are creative principles and essentially beyond understanding; both admit that the Divine cannot be measured by the standards of man. But this, in fact, implies an avowal of our complete ignorance in face of the Mystery of God. Still, for both parties God is the supreme Artifex who in His wisdom has chosen the best of all possible worlds; for although the philosophers affirm also that God acts only by natural necessity, their system, like that of their predecessors, the Platonists, Peripatetics, and Stoics, is essentially teleological. As to the problem of possibility, both parties commit the same inconsistencies and hold sometimes that the world could, sometimes that it could not, have been different from what it is. Finally, both parties believe in God's ultimate Unity.

And if one studies the other works of Ghazali the resemblance between him and the philosophers becomes still greater. For instance, he too believes in the spirituality of the soul, notwithstanding the arguments he gives against it in this book; he too sometimes regards religious concepts as the symbols of a higher philosophical or mystical truth, although he admits here only a literal interpretation. He too sometimes teaches the fundamental theory of the philosophers which he tries to refute so insistently in our book, the theory that from the one supreme Agent as the ultimate source through intermediaries all things derive; and he himself expresses this idea (in his *Alchemy of Happiness* and slightly differently in his *Vivification of Theology*) by the charming simile of an ant which seeing black tracings on a sheet of paper thinks that their cause is the pen, while it is the hand that moves the pen by the power of the will which derives from the heart, itself inspired by the spiritual agent, the cause of causes. The

resemblances between Ghazali and Averroës, men belonging to the same culture, indeed, the greatest men in this culture, seem sometimes greater than their differences.

Emotionally the difference goes deep. Averroës is a philosopher, and a proud believer in the possibility of reason to achieve a knowledge of 'was das Innere der Welt zusammenhält'. He was not always too sure, he knew too much, and there is much wavering and hesitation in his ideas. Still, his faith in reason remains unshaken. Although he does not subscribe to the lofty words of his master that man because of the power of his intellect is a mortal God, he reproaches the theologians for having made God an immortal man. God, for him, is a dehumanized principle. But if God has to respond to the needs of man's heart, can He be exempt from humanity? Ghazali is a *mu'min*, that is a believer, he is a *muslim*, that is he accepts: his heart submits to a truth his reason cannot establish, for his heart has reasons his reason does not know. His theology is the philosophy of the heart in which there is expressed man's fear and loneliness and his feeling of dependence on an understanding and loving Being to whom he can cry out from the depths of his despair, and whose mercy is infinite. It is not so much after abstract truth that Ghazali strives; his search is for God, for the Pity behind the clouds.

IN THE NAME OF THE MERCIFUL AND COMPASSIONATE GOD: AND AFTER PRAISE TO GOD AND BENEDICTION UPON ALL HIS MESSENGERS AND PROPHETS: 3

THE aim of this book is to show the different degrees of assent[1] and conviction attained by the assertions in *The Incoherence of the Philosophers*, and to prove that the greater part has not reached the degree of evidence and of truth.

THE FIRST DISCUSSION

Concerning the Eternity of the World

Ghazali, speaking of the philosophers' proofs for the eternity of the world,[2] says: 4

Let us restrict ourselves in this chapter to those proofs that make an impression on the mind.

This chapter contains four* proofs.

THE FIRST PROOF

The philosophers say: It is impossible that the temporal should proceed from the absolutely Eternal. For it is clear—if we assume the Eternal existing without, for instance, the world proceeding from Him, then, at a certain moment, the world beginning to proceed from Him—that it did not proceed before, because there was no determining principle for its existence, but its existence was pure possibility*. When the world begins in time, a new determinant either does or does not arise. If it does not, the world will stay in the same state of pure possibility as before; if a new determinant does arise, the same question can be asked about this new determinant, why it determines now, and not before, and either we shall have an infinite regress or we shall arrive at a principle determining eternally.[3] 5

I say: This argument is in the highest degree dialectical and does not reach the pitch of demonstrative proof.[4] For its premisses are common notions, and common notions approach the equivocal, whereas demonstrative premisses are concerned with things proper to the same genus.[5] 5

For the term 'possible' is used in an equivocal way of the possible that happens more often than not, of the possible that happens less often than not, and of the possible with equal chances of happening, and these three types of the possible do not seem to have the same need for a new determining principle.[6] For the possible that happens more often than not is frequently believed to have its determining 5

principle in itself, not outside, as is the case with the possible which has equal chances of happening and not happening.[1] Further, the possible resides sometimes in the agent, i.e. the possibility of acting, and sometimes in the patient, i.e. the possibility of receiving, and it does not seem that the necessity for a determining principle is the same in both cases. For it is well known that the possible in the patient needs a new determinant from the outside; this can be perceived by the senses in artificial things and in many natural things too, although in regard to natural things there is a doubt, for in most natural things the principle of their change forms part of them.[2] Therefore it is believed of many natural things that they move themselves, and it is by no means self-evident that everything that is moved has a mover and that there is nothing that moves itself.[3] But all this needs to be examined, and the old philosophers have therefore done so. As concerns the possible in the agent, however, in many cases it is believed that it can be actualized without an external principle, for the transition in the agent from inactivity to activity is often regarded as not being a change which requires a principle; e.g. the transition in the geometer from non-geometrizing to geometrizing, or in the teacher from non-teaching to teaching.

Further, those changes which are regarded as needing a principle of change can sometimes be changes in substance, sometimes in quality, or in quantity, or in place.[4]

In addition, 'eternal' is predicated by many of the eternal-by-itself and the eternal-through-another.[5] According to some, it is permissible to admit certain changes in the Eternal, for instance a new volition in the Eternal, according to the Karramites,[6] and the possibility of generation and corruption which the ancients attribute to primary matter, although it is eternal.[7] Equally, new concepts are admitted in the possible intellect although, according to most authors, it is eternal.[8] But there are also changes which are inadmissible, especially according to certain ancients, though not according to others.

Then there is the agent who acts of his will and the agent which acts by nature, and the manner of actualization of the possible act is not the same for both agents, i.e. so far as the need for a new determinant is concerned.[9] Further, is this division into two agents complete, or does demonstration lead to an agent which resembles neither the natural agent nor the voluntary agent of human experience?

All these are multifarious and difficult questions which need, each of them, a special examination, both in themselves and in regard to

the opinions the ancients held about them. To treat what is in reality a plurality of questions as one problem is one of the well-known seven sophisms,[1] and a mistake in one of these principles becomes a great error by the end of the examination of reality.[2]

Ghazali says:

There are two objections to this. The first objection is to say: why* do you deny the theory of those who say that the world has been created by an eternal will which has decreed its existence in the time in which it exists; that its non-existence lasts until the moment it ceases and that its existence begins from the moment it begins; that its existence was not willed before and therefore did not happen, and that at the exact moment it began it was willed by an eternal will and therefore began?[3] What is the objection to this theory and what is absurd in it?

I say:

This argument is sophistical: although it is not allowable for him to admit the possibility of the actual effect being delayed after the actual cause, and in a voluntary agent, after the decision to act, he regards it as possible that the effect should be delayed after the will of the agent. It is possible that the effect should be delayed after the will of the agent, but its being delayed after the actual cause is impossible, and equally impossible is its being delayed after a voluntary agent's decision to act. The difficulty is thus unchanged, for he must of necessity draw one of these two conclusions: either that the act of the agent does not imply in him a change which itself would need an external principle of change, or that there are changes which arise by themselves, without the necessity of an agent in whom they occur and who causes them, and that therefore there are changes possible in the Eternal without an agent who causes them. And his adversaries insist on these two very points: (1) that the act of the agent necessarily implies a change[4] and that each change has a principle which causes it; (2) that the Eternal cannot change in any way. But all this is difficult to prove.[5]

The Ash'arites are forced to assume either a first agent or a first act of this agent, for they cannot admit that the disposition of the agent, relative to the effect, when he acts is the same as his disposition, when he does not act.[6] This implies therefore a new disposition or a new relation, and this necessarily either in the agent, or in the effect, or in both.[7] But in this case, if we posit as a principle that for each new disposition there is an agent, this new disposition in the first agent will either need another agent, and then this first agent

was not the first and was not on his own account sufficient for the act but needed another, or the agent of the disposition which is the condition of the agent's act will be identical with the agent of the act. Then this act which we regarded as being the first act arising out of him will not be the first, but his act producing the disposition which is the condition of the effect will be anterior to the act producing the effect.[1] This, you see, is a necessary consequence, unless one allows that new dispositions may arise in the agents without a cause. But this is absurd, unless one believes that there are things which happen at haphazard and by themselves,[2] a theory of the old philosophers who denied the agent,[3] the falsehood of which is self-evident.

In Ghazali's objection there is a confusion. For our expressions 'eternal will' and 'temporal will' are equivocal, indeed contrary. For the empirical will is a faculty which possesses the possibility of doing equally one of two contraries and then of receiving equally one of the two contraries willed.[4] For the will is the desire of the agent towards action.[5] When the agent acts, the desire ceases and the thing willed happens, and this desire and this act are equally related to both the contraries. But when one says: 'There is a Willer who wills eternally one of two contraries in Himself', the definition of the will is abandoned, for we have transferred its nature from the possible to the necessary. If it is objected that in an eternal will the will does not cease through the presence of the object willed, for as an eternal will has no beginning there is no moment in it which is specially determined for the realization of the object willed, we answer: this is not obvious, unless we say that demonstrative proof leads to the existence of an agent endowed with a power which is neither voluntary nor natural, which, however, the Divine Law calls 'will', in the same way as demonstrative proof leads to middle terms between things which seemed at first sight to be contrary, without being really so, as when we speak of an existence which is neither inside nor outside the world.[6]

Ghazali answers, on behalf of the philosophers:

The philosophers say: This is clearly impossible, for everything that happens is necessitated and has its cause, and as it is impossible that there should be an effect without a necessitating principle and a cause, so it is impossible that there should exist a cause of which the effect is delayed, when all the conditions of its necessitating, its causes and elements are completely fulfilled. On the contrary, the existence of the effect, when the cause is realized with all its conditions, is necessary, and its delay is just as impossible as an effect without cause. Before the existence of the world

there existed a Willer, a will, and its relation to the thing willed. No new willer arose, nor a new will, nor a new relation to the will—for all this is change; how then could a new object of will arise, and what prevented its arising before? The condition of the new production did not distinguish itself from the condition of the non-production in any way, in any mode, in any relation—on the contrary, everything remained as it was before. At one moment the object of will did not exist, everything remained as it was before, and then the object of will existed. Is not this a perfectly absurd theory?

I say:

This is perfectly clear, except for one who denies one of the premisses we have laid down previously. But Ghazali passes from this proof to an example based upon convention,[1] and through this he confuses this defence of the philosophers.

Ghazali says:

This kind of impossibility is found not only in the necessary and essential cause and effect but also in the accidental* and conventional. If a man pronounces the formula of divorce against his wife without the divorce becoming irrevocable immediately, one does not imagine that it will become so later.[2] For he made the formula through convention and usage a cause of the judgement, and we do not believe that the effect can be delayed, except when the divorce depends on an ulterior event, e.g. on the arrival of tomorrow or on someone's entering the house, for then the divorce does not take place at once, but only when tomorrow arrives or someone enters the house; in this case the man made the formula a cause only in conjunction with an ulterior event. But as this event, the coming of tomorrow and someone's entering the house, is not yet actual, the effect is delayed until this future event is realized. The effect only takes place when a new event, i.e. entering the house or the arrival of tomorrow, has actually happened. Even if a man wanted to delay the effect after the formula, without making it dependent on an ulterior event, this would be regarded as impossible, although it is he himself who lays down the convention and fixes its modalities. If thus in conventional matters such a delay is incomprehensible and inadmissible, how can we admit it in essential, rational, and necessary causal relations? In respect of our conduct and our voluntary actions, there is a delay in actual volition only when there is some obstacle. When there is actual volition and actual power and the obstacles are eliminated, a delay in the object willed is inadmissible.[3] A delay in the object willed is imaginable only in decision, for decision is not sufficient for the existence of the act;[4] the decision to write does not produce the writing, if it is not, as a new fact, accompanied by an act of volition, i.e. an impulse in the man which presents itself at the moment of the act. If there is thus an analogy between the eternal Will and our will to act, a delay of the object willed is inadmissible, unless

through an obstacle, and an antecedent existence of the volition is equally inadmissible, for I cannot will to get up tomorrow except by way of decision. If, however, the eternal Will is analogous to our decision, it does not suffice to produce the thing decided upon, but the act of creation must be accompanied by a new act of volition, and this brings us again to the idea of a change. But then we have the same difficulty all over again. Why does this impulse or volition or will or whatever you choose to call it happen just now and not before? There remain, then, only these alternatives: either something happening without a cause, or an infinite regress. This is the upshot of the discussion: There is a cause the conditions of which are all completely fulfilled, but notwithstanding this the effect is delayed and is not realized during a period to the beginning of which imagination cannot attain and for which thousands of years would mean no diminution; then suddenly, without the addition of any new fact, and without the realization of any new condition, this effect comes into existence and is produced. And this is absurd.

I say:

This example of divorce based on convention seems to strengthen the argument of the philosophers, but in reality it weakens it. For it enables the Ash'arites to say: In the same way as the actual divorce is delayed after the formula of divorce till the moment when the condition of someone's entering the house, or any other, is fulfilled, so the realization of the world can be delayed after God's act of creation until the condition is fulfilled on which this realization depends, i.e. the moment when God willed it. But conventional things do not behave like rational. The Literalists, comparing these conventional things to rational, say: This divorce is not binding and does not become effective through the realization of the condition which is posterior to the pronouncement of the divorce by the divorcer, since it would be a divorce which became effective without connexion with the act of the divorcer.[1] But in this matter there is no relation between the concept drawn from the nature of things and that which is artificial and conventional.

Then Ghazali says, on behalf of the Ash'arites:

The answer is: Do you recognize the impossibility of connecting the eternal Will with the temporal production of anything, through the necessity of intuitive thought or through a logical deduction, or—to use your own logical terminology—do you recognize the clash between these two concepts through a middle term or without a middle term?[2] If you claim a middle term—and this is the deductive method—you will have to produce it, and if you assert that you know this through the necessity of thought, why do your adversaries not share this intuition with you?[3] For

the party which believes in the creation of the world in time through an eternal Will includes so many persons that no country can contain them and no number enumerate them, and they certainly do not contradict the logically minded out of obstinacy, while knowing better in their hearts. A proof according to the rules of logic must be produced to show this impossibility, as in all your* arguments up till now there is only a presumption of impossibility and a comparison with our decision and our will; and this is false, for the eternal Will does not resemble temporal volitions, and a pure presumption of impossibility will not suffice without proof.

I say:

This argument is one of those which have only a very feeble persuasive power. It amounts to saying that one who claims the impossibility of delay in an effect, when its cause with all its conditions is realized, must assert that he knows this either by a syllogism or from first principles; if through a syllogism, he must produce it—but there is none; if from first principles, it must be known to all, adversaries and others alike. But this argument is mistaken, for it is not a condition of objective truth that it should be known to all. That anything should be held by all does not imply anything more than its being a common notion, just as the existence of a common notion does not imply objective truth.[1]

Ghazali answers on behalf of the Ash'arites:

If it is said, 'We know by the necessity of thought that, when all its conditions are fulfilled, a cause without effect is inadmissible and that to admit it is an affront to the necessity of thought,' we answer: what is the difference between you and your adversaries, when they say to you, 'We know by the necessity of thought the impossibility of a theory which affirms that one single being knows all the universals, without this knowledge forming a plurality in its essence or adding anything to it, and without this plurality of things known implying a plurality in the knowledge'?[2] For this is your theory of God, which according to us and our science is quite absurd. You, however, say there is no analogy between eternal and temporal knowledge. Some of you acknowledge the impossibility involved, and say that God knows only Himself and that He is the knower, the knowledge and the known, and that the three are one. One might object: The unity of the knowledge, the knower, and the known is clearly an impossibility, for to suppose the Creator of the world ignorant of His own work is necessarily absurd, and the Eternal—who is far too high to be reached by your* words and the words of any heretics—could, if He knows only Himself, never know His work.

I say:

This amounts to saying that the theologians do not gratuitously

and without proof deny the admitted impossibility of a delay between the effect and its cause, but base themselves on an argument which leads them to believe in the temporal creation of the world, and that they therefore act in the same way as the philosophers, who only deny the well-known necessary plurality of knowledge and known, so far as it concerns their unity in God, because of a demonstration which, according to them, leads them to their theory about Him. And that this is still more true of those philosophers who deny it to be necessary that God should know His own work, affirming that He knows only Himself. This assertion belongs to the class of assertions whose contrary is equally false.[1] For there exists no proof which refutes anything that is evidently true, and universally acknowledged. Anything that can be refuted by a demonstrative proof is only supposed to be true, not really true.[2] Therefore, if it is absolutely and evidently true that knowledge and known form a plurality, both in the visible and in the invisible world, we can be sure that the philosophers cannot have a proof of this unity in God; but if the theory of the plurality of knowledge and known is only a supposition, then it is possible for the philosophers to have a proof. Equally, if it is absolutely true that the effect of a cause cannot be delayed after the causation and the Ash'arites claim that they can advance a proof to deny it, then we can be absolutely sure that they cannot have such a proof. If there is a controversy about questions like this, the final criterion rests with the sound understanding[3] which does not base itself on prejudice and passion, when it probes according to the signs and rules by which truth and mere opinion are logically distinguished. Likewise, if two people dispute about a sentence and one says that it is poetry, the other that it is prose, the final judgement rests with the 'sound understanding' which can distinguish poetry from prose, and with the science of prosody. And as, in the case of metre, the denial of him who denies it does not interfere with its perception by him who perceives it, so the denial of a truth by a contradictor does not trouble the conviction of the men to whom it is evident.

This whole argument is extremely inept and weak, and Ghazali ought not to have filled* his book with such talk if he intended to convince the learned.

And drawing consequences which are irrelevant and beside the point, Ghazali goes on to say:

> But the consequences of this argument cannot be overcome. And we say to them: How will you refute your adversaries, when they say the

eternity of the world is impossible, for it implies an infinite number and an infinity of unities for the spherical revolutions, although they can be divided by six, by four, and by two.[1] For the sphere of the sun revolves in one year, the sphere of Saturn in thirty years, and so Saturn's revolution is a thirtieth and Jupiter's revolution—for Jupiter revolves in twelve years—a twelfth of the sun's revolution. But the number of revolutions of Saturn has the same infinity as the revolutions of the sun, although they are in a proportion of one to thirty and even the infinity of the sphere of the fixed stars which turns round once in thirty-six thousand years is the same as the daily revolution which the sun performs in twenty-four hours. If now your adversary says that this is plainly impossible, in what does your argument differ from his? And suppose it is asked: Are the numbers of these revolutions even or uneven or both even and uneven or neither even nor uneven? If you answer, both even and uneven, or neither even nor uneven, you say what is evidently absurd. If, however, you say 'even' or 'uneven', even and uneven become uneven and even by the addition of one unit and how could infinity be one unit short? You must, therefore, draw the conclusion that they are neither even nor uneven.

I say: 17

This too is a sophistical argument. It amounts to saying: In the same way as *you* are unable to refute *our* argument for the creation of the world in time, that if it were eternal, its revolutions would be neither even nor uneven, so *we* cannot refute *your* theory that the effect of an agent whose conditions to act are always fulfilled cannot be delayed. This argument aims only at creating and establishing a doubt, which is one of the sophist's objectives.

But you, reader of this book, you have already heard the arguments of the philosophers to establish the eternity of the world and the refutation of the Ash'arites. Now hear the proofs of the Ash'arites for their refutation and hear the arguments of the philosophers to refute those proofs in the wording of Ghazali![†]

I say: 18

This is in brief that, if you imagine two circular movements in one and the same finite time and imagine then a limited part of these movements in one and the same finite time, the proportion between the parts of these two circular movements and between their wholes will be the same. For instance, if the circular movement of Saturn in the period which we call a year is a thirtieth of the circular movement of the sun in this period, and you imagine the whole of the circular movements of the sun in proportion to the whole of the

† [Here, in the Arabic text, the last passage of Ghazali, which previously was given only in an abbreviated form, is repeated in full.]

circular movements of Saturn in one and the same period*, necessarily the proportion between their wholes* and between their parts will be the same.[1] If, however, there is no proportion between two movements in their totality, because they are both potential, i.e. they have neither beginning nor end but there exists a proportion between the parts, because they are both actual, then the proportion between the wholes is not necessarily the same as the proportion between the parts—although many think so, basing their proof on this prejudice —for there is no proportion between two magnitudes or quantities which are both taken to be infinite.[2] When, therefore, the ancients believed that, for instance, the totality of the movements of the sun and of Saturn had neither beginning nor end, there could be no proportion between them, for this would have implied the finitude of both these totalities, just as this is implied for the parts of both. This is self-evident. Our adversaries believe that, when a proportion of more and less exists between parts, this proportion holds good also for the totalities, but this is only binding when the totalities are finite.[3] For where there is no end there is neither 'more' nor 'less'. The admission in such a case of the proportion of more and less brings with it another absurd consequence, namely that one infinite could be greater than another. This is only absurd when one supposes two things actually infinite, for then a proportion does exist between them.[4] When, however, one imagines things potentially infinite, there exists no proportion at all. This is the right answer to this question, not what Ghazali says in the name of the philosophers.

And through this are solved all the difficulties which beset our adversaries on this question, of which the greatest is that which they habitually formulate in this way: If the movements in the past are infinite, then no movement in the actual present can take place, unless an infinite number of preceding movements is terminated.[5] This is true, and acknowledged by the philosophers, once granted that the anterior movement is the condition for the posterior movement's taking place, i.e. once granted that the existence of one single movement implies an infinite number of causes. But no philosopher allows the existence of an infinite number of causes, as accepted by the materialists, for this would imply the existence of an effect without cause and a motion without mover.[6] But when the existence of an eternal prime mover had been proved, whose act cannot be posterior to his being, it followed that there could as little be a beginning for

his act as for his being; otherwise his act would be possible, not necessary, and he would not be a first principle.[1] The acts of an agent who has no beginning have a beginning as little as his existence, and therefore it follows necessarily that no preceding act of his is the condition for the existence of a later, for neither of them is an agent by itself and their sequence is accidental. An accidental infinite, not an essential infinite, is admitted by the philosophers; nay, this type of infinite is in fact a necessary consequence of the existence of an eternal first principle.[2] And this is not only true for successive or continuous movements and the like, but even where the earlier is regarded as the cause of the later, for instance the man who engenders a man like himself.[3] For it is necessary that the series of temporal productions of one individual man by another should lead upwards to an eternal agent, for whom there is no beginning either of his existence or of his production of man out of man. The production of one man by another *ad infinitum* is accidental, whereas the relation of before and after in it is essential. The agent who has no beginning either for his existence or for those acts of his which he performs without an instrument, has no first instrument* either to perform those acts of his without beginning which by their nature need an instrument.[4]

But since the theologians mistook the accidental for the essential, they denied this eternal agent; the solution of their problem was difficult and they believed this proof to be stringent. But this theory of the philosophers is clear, and their first master Aristotle has explained that, if motion were produced by motion, or element by element, motion and element could not exist.[5] For this type of infinite the philosophers admit neither a beginning nor an end, and therefore one can never say of anything in this series that it has ended or has begun, not even in the past, for everything that has an end must have begun and what does not begin does not end. This can also be understood from the fact that beginning and end are correlatives. Therefore one who affirms that there is no end of the celestial revolutions in the future cannot logically ascribe a beginning to them, for what has a beginning has an end and what has no end has no beginning, and the same relation exists between first and last; i.e. what has a first term has also a last term, and what has no first term has no last term, and there is in reality neither end nor beginning for any part of a series that has no last term, and what has no beginning for any of its parts has no end for any of them either. When, therefore, the theologians ask the philosophers if the move-

ments which precede the present one are ended, their answer is negative, for their assumption that they have no beginning implies
10 their endlessness. The opinion of the theologians that the philosophers admit their end is erroneous, for they do not admit an end for what has no beginning.[1] It will be clear to you that neither the arguments of the theologians for the temporal creation of the world of which Ghazali speaks, nor the arguments of the philosophers which he includes and describes in his book, suffice to reach absolute evidence or afford stringent proof*. And this is what we have tried to show in
23 this book. The best answer one can give to him who asks where in the past is the starting-point of His acts, is: The starting-point of His acts is at the starting-point of His existence; for neither of them has a beginning.

And here is the passage of Ghazali in which he sets forth the defence of the philosophers against the argument built on the difference in speed of the celestial spheres, and his refutation of their argument.
5 Ghazali says:

If one says, 'The error in your argument consists in your considering those circular movements as an aggregate of units, but those movements have no real existence, for the past is no more and the future not yet; "aggregate" means units existing in the present, but in this case there is no existence.'

Then he says to refute this:

We answer: Number can be divided into even and uneven; there is no third possibility, whether for the numbered permanent reality, or for the numbered passing event. Therefore whatever number we imagine, we must believe it to be even or uneven, whether we regard it as existent or
10 non-existent; and if the thing numbered vanishes from existence, our judgement of its being even or uneven does not vanish or change.[2]

I say:

This is the end of his argument. But this argument—that the numbered thing must be judged as even or uneven, whether it exists or not—is only valid so far as it concerns external things or things in the soul that have a beginning and an end. For of the number which exists only potentially, i.e. which has neither beginning nor end, it cannot truly be said that it is even or uneven, or that it
24 begins or ends; it happens neither in the past nor in the future, for what exists potentially falls under the law of non-existence.[3] This is what the philosophers meant when they said that the circular movements of the past and the future are non-existent.[4] The upshot of this

question is: Everything that is called a limited aggregate with a beginning and an end is so called either because it has a beginning and end in the world exterior to the soul, or because it is inside, not outside, the soul. Every totality, actual and limited in the past, whether inside or outside the soul, is necessarily either even or uneven. But an unlimited aggregate existing outside the soul cannot be other than limited so far as it is represented in the soul, for the soul cannot represent unlimited existence. Therefore also this unlimited aggregate, as being limited in the soul, can be called even or uneven; in so far, however, as it exists outside the soul, it can be called neither even nor uneven. Equally, past aggregates which are considered to exist potentially outside the soul, i.e. which have no beginning, cannot be called even or uneven unless they are looked upon as actual, i.e. as having beginning and end. No motion possesses totality or forms an aggregate, i.e. is provided with a beginning or an end, except in so far as it is in the soul, as is the case with time.[1] And it follows from the nature of circular movement that it is neither even nor uneven except as represented in the soul. The cause of this mistake is that it was believed that, when something possesses a certain quality in the soul, it must possess this quality also outside the soul, and, since anything that has happened in the past can only be represented in the soul as finite, it was thought that everything that has happened in the past must also be finite outside the soul. And as the circular movements of the future are regarded by the imagination* as infinite, for it represents them as a sequence of part after part,[2] Plato[3] and the Ash'arites believed that they might be infinite, but this is simply a judgement based on imagination, not on proof. Therefore those* who believe—as many theologians have done—that, if the world is supposed to have begun, it must have an end, are truer to their principles[4] and show more consistency.

Ghazali says after this:

> And we say moreover to the philosophers: According to your principles it is not absurd that there should be actual units, qualitatively differentiated, which are infinite in number; I am thinking of human souls, separated through death from their bodies. These are therefore realities that can neither be called even nor uneven. How will you refute the man who affirms that this is necessarily absurd in the same way as you claim the connexion between an eternal will and a temporal creation to be necessarily absurd? This theory about souls is that which Avicenna accepted, and it is perhaps Aristotle's.

I say:

This argument is extremely weak. It says, in brief, 'You philosophers need not refute our assertion that what is a logical necessity for you is not necessary, as you consider things possible which your adversaries consider impossible by the necessity of thought. That is to say, just as you consider things possible which your adversaries consider impossible, so you consider things necessary which your adversaries do not consider so. And you cannot bring a criterion for judging the two claims.' It has already been shown in the science of logic that this is a weak rhetorical or sophistical kind of argument.[1] The answer is that what *we** claim to be necessarily true is objectively true, whereas what *you* claim as necessarily absurd is not as you claim it to be. For this there is no other criterion than immediate intuitive apprehension,[2] just as, when one man claims that a line is rhythmical and another denies it, the criterion is the intuition of the sound understanding.

As for the thesis of a numerical plurality of immaterial souls, this is not a theory acknowledged by the philosophers,[3] for they regard matter as the cause of numerical plurality[4] and form as the cause of congruity in numerical plurality. And that there should be a numerical plurality without matter, having one unique form, is impossible. For in its description one individual can only be distinguished from another accidentally, as there is often another individual who participates in this description,[5] but only through their matter do individuals differ in reality. And also this: the impossibility of an actual infinite is an acknowledged axiom in philosophical theory, equally valid for material and immaterial things. We do not know of any one who makes a distinction here between the spatial and the non-spatial, with the single exception of Avicenna.[6] I do not know of any other philosopher who affirms this, it does not correspond with any of their principles and it makes no sense, for the philosophers deny the existence of an actual infinite equally for material and for immaterial things, as it would imply that one infinite could be greater than another. Perhaps Avicenna wanted only to satisfy the masses, telling them what they were accustomed to hear about the soul. But this theory is far from satisfactory. For if there were an actual infinite and it were divided in two, the part would equal the whole; e.g. if there were a line or a number actually infinite in both directions and it were divided in two, both the parts and the whole would be actually infinite; and this is absurd.[7] All this is simply the consequence of the admission of an actual and not potential infinite.

Ghazali says:

If it is said, 'The truth lies with Plato's theory of one eternal soul which is only divided in bodies and returns after its separation from them to its original unity',[1] we answer: This theory is still worse, more objectionable and more apt to be regarded as contrary to the necessity of thought. For we say that the soul of Zaid is either identical with the soul of Amr or different from it; but their identity would mean something absurd, for everyone is conscious of his own identity and knows that he is not another, and, were they identical, their knowledge, which is an essential quality of their souls and enters into all the relations into which their souls enter, would be identical too.[2] If you say their soul is unique and only divided through its association with bodies, we answer that the division of a unity which has no measurable volume* is absurd by the necessity of thought. And how could the one become two, and indeed a thousand, and then return to its unity? This can be understood of things which have volume and quantity, like the water of the sea which is distributed into brooks and rivers and flows then back again into the sea, but how can that which has no quantity be divided?[3] We seek to show by all this that the philosophers cannot shake the conviction of their adversaries that the eternal Will is connected with temporal creation, except by claiming its absurdity by the necessity of thought, and that therefore they are in no way different from the theologians who make the same claim against the philosophical doctrines opposed to theirs. And out of this there is no issue.

I say:

Zaid and Amr are numerically different, but identical in form. If, for example, the soul of Zaid were numerically different from the soul of Amr in the way Zaid is numerically different from Amr, the soul of Zaid and the soul of Amr would be numerically two, but one in their form, and the soul would possess another soul.[4] The necessary conclusion is therefore that the soul of Zaid and the soul of Amr are identical in their form. An identical form inheres in a numerical, i.e. a divisible, multiplicity, only through the multiplicity of matter. If then the soul does not die when the body dies, or if it possesses an immortal element, it must, when it has left the bodies, form a numerical unity.[5] But this is not the place to go deeper into this subject.

His argument against Plato is sophistical. It says in short that the soul of Zaid is either identical with the soul of Amr or different from it; but that the soul of Zaid is not identical with the soul of Amr and that therefore it is different from it. But 'different' is an equivocal term, and 'identity' too is predicated of a number of things which are also called 'different'.[6] The souls of Zaid and Amr are one in one

sense and many in another; we might say, one in relation to their form, many in relation to their substratum. His remark that division can only be imagined of the quantitative is partially false; it is true of essential division, but not of accidental division, i.e. of those things which can be divided, because they exist in the essentially divisible.[1] The essentially divisible is, for example, body; accidental division is, for instance, the division of whiteness, when the bodies in which it is present are divided, and in this way the forms and the soul are accidentally divisible, i.e. through the division of the substrate. The soul is closely similar to light: light is divided by the division of illuminated bodies, and is unified when the bodies are annihilated, and this same relation holds between soul and bodies.[2] To advance such sophistical arguments is dishonest, for it may be supposed that he is not a man to have overlooked the points mentioned. What he said, he said only to flatter the masses of his times, but how far removed is such an attitude from the character of those who seek to set forth the truth![3] But perhaps the man may be forgiven on account of the time and place in which he lived; and indeed he only proceeded in his books in a tentative way.[4]

And as these arguments carry no evidence whatsoever, Ghazali says:

> We want to show by all this that the philosophers cannot shake the conviction of their adversaries that the eternal Will is connected with temporal creation, by claiming its absurdity by the necessity of thought, and that therefore they do not distinguish themselves from the theologians, who make the same claim against the philosophical doctrines opposed to theirs. And out of this there is no issue.

I say:

When someone denies a truth of which it is absolutely certain that it is such-and-such, there exists no argument by which we can come to an understanding with him; for every argument is based on known premisses about which both adversaries agree.[5] When each point advanced is denied by the adversary, discussion with him becomes impossible, but such people stand outside the pale of humanity and have to be educated. But for him who denies an evident truth, because of a difficulty which presents itself to him there is a remedy, i.e. the solution of this difficulty. He who does not understand evident truth, because he is lacking in intelligence, cannot be taught anything, nor can he be educated.[6] It is like trying to make the blind imagine colours or know their existence.

Ghazali says:

The philosophers may object: This argument (that the present has been preceded by an infinite past) can be turned against you, for God before the creation of the world was able to create it, say, one year or two years* before He did, and there is no limit to His power; but He seemed to have patience and did not create. Then He created. Now, the duration of His inactivity is either finite or infinite. If you say finite, the existence of the Creator becomes finite; if you say infinite, a duration in which there is an infinite number of possibilities receives its termination.[1] We answer: Duration and time are, according to us, created, but we shall explain the real answer to this question when we reply to the second proof of the philosophers.[2]

I say:

Most people who accept a temporal creation of the world believe 32
time to have been created with it. Therefore his assertion that the duration of His inactivity was either limited or unlimited is untrue. For what has no beginning does not finish or end. And the opponent does not admit that the inactivity has any duration at all. What one has to ask them about the consequences of their theory is: Is it possible, when the creation of time is admitted, that the term of its beginning may lie beyond the real time in which we live?[3] If they answer that it is not possible, they posit a limited extension beyond which the Creator cannot pass, and this is, in their view, shocking and absurd. If, however, they concede that its possible beginning may lie beyond the moment of its created term, it may further be asked if there may not lie another term beyond this second. If they answer in the affirmative—and they cannot do otherwise—it will be said: Then we shall have here a possible creation of an infinite number of durations, and you will be forced to admit—according to your argument about the spherical revolutions—that their termination is a condition for the real age which exists since them. If you say what is infinite does not finish, the arguments you use about the spherical revolutions against your opponents your opponents will use against you* on the subject of the possibility of created durations. If it is objected that the difference between those two cases is that these infinite possibilities belong to extensions which do not become actual, 33
whereas the spherical revolutions do become actual, the answer is that the possibilities of things belong to their necessary accidents and that it does not make any difference, according to the philosophers, if they precede these things or are simultaneous with them, for of necessity they are the dispositions* of things.[4] If, then, it is impossible

that before the existence of the present spherical revolution there should have been infinite spherical revolutions, the existence of infinite possible revolutions is equally impossible. If one wants to avoid these consequences, one can say that the age of the world is a definite quantity and cannot be longer or shorter than it is, in conformity with the philosophical doctrine about the size of the world.[1] Therefore these arguments are not stringent, and the safest way for him who accepts the temporal creation of the world is to regard time as of a definite extension and not to admit a possibility which precedes the possible;[2] and to regard also the spatial extension of the world as finite. Only, spatial extension forms a simultaneous whole; not so time.

Ghazali expounds a certain kind of argument attributed to the philosophers on this subject against the theologians when they
34 denied* that the impossibility of delay* in the Creator's act after His existence is known by primitive intuition:[3]

> How will you defend yourselves, theologians, against the philosophers, when they drop this argument, based on the necessity of thought, and prove the eternity of the world* in this way, saying that times are equivalent so far as the possibility that the Divine Will should attach itself to them is concerned, for what differentiates a given time from an earlier or a later time? And it is not absurd to believe that the earlier or the later might be chosen when on the contrary you theologians say about white, black, movement, and rest that the white is realized through the eternal Will although its substrate accepts equally black and white. Why, then, does the eternal Will attach itself to the white rather than to the black, and what differentiates one of the two possibles from the other for connexion with the eternal Will? But we philosophers know by the necessity of thought that one thing does not distinguish itself from a similar except by a differentiating principle, for if not, it would be possible that the world should come into existence, having the possibility both of existing and of not existing, and that the side of existence, although it has the same possibility as the side of non-existence, should be differentiated without a differentiating principle. If you answer that the Will of God is the differentiating principle, then one has to inquire what differentiates the Will, i.e. the reason why it has been differentiated in such or such way. And if you answer: One does not inquire after the motives of the Eternal,[4] well, let the world then be eternal, and let us not inquire after its Creator and its cause, since one does not inquire after the motives of the Eternal! If it is regarded as possible that the Eternal should differentiate one of the two possibles by chance, it will be an extreme absurdity to say that the world is differentiated in differentiated forms which might just as well be other-

wise, and one might then say that this has happened by chance in the same way as you say that the Divine Will has differentiated one time rather than another or one form rather than another by chance. If you say that such a question is irrelevant, because it refers to anything God can will or decide, we answer that this question is quite relevant, for it concerns any time and is pertinent for our opponents to any decision God takes.

We answer: The world exists, in the way it exists, in its time, with its qualities, and in its space, by the Divine Will and will is a quality which has the faculty of differentiating one thing from another,[1] and if it had not this faculty, power in itself would suffice.[2] But, since power is equally related to two contraries[3] and a differentiating principle is needed to differentiate one thing from a similar, it is said that the Eternal possesses besides His power a quality which can differentiate between two similars.[4] And to ask why will differentiates one of two similars is like asking why knowledge must comprehend the knowable, and the answer is that 'knowledge' is the term for a quality which has just this nature. And in the same way, 'will' is the term for a quality the nature or rather the essence of which is to differentiate one thing from another.

The philosophers may object: The assumption of a quality the nature of which is to differentiate one thing from a similar one is something incomprehensible, nay even contradictory, for 'similar' means not to be differentiated, and 'differentiated' means not similar. And it must not be believed that two blacks in two substrates are similar in every way, since the one is in one place and the other in another, and this causes a distinction; nor are two blacks at two times in one substrate absolutely similar, since they are separated in time, and how could they therefore be similar in every way? When we say of two blacks that they are similar, we mean that they are similar in blackness, in their special relation to it—not absolutely. Certainly, if the substrate and the time were one without any distinction, one could not speak any more of two blacks or of any duality at all. This proves that the term 'Divine Will' is derived from our will, and one does not imagine that through our will two similar things can be differentiated.[5] On the contrary, if someone who is thirsty has before him two cups of water, similar in everything in respect to his aim, it will not be possible for him to take either of them. No, he can only take the one he thinks more beautiful or lighter or nearer to his right hand, if he is right-handed, or act from some such reason, hidden or known. Without this the differentiation of the one from the other cannot be imagined.

I say:

The summary of what Ghazali relates in this section of the proofs of the philosophers for the impossibility of a temporal proceeding from an eternal agent is that in God there cannot be a will. The philosophers could only arrive at this argument after granting to their opponents that all opposites—opposites in time,[6] like anterior

and posterior, as well as those in quality, like white and black—are equivalent in relation to the eternal Will. And also non-existence and existence are, according to the theologians, equivalent in relation to
35 the Divine Will. And having granted their opponents this premiss, although they did not acknowledge its truth, they said to them: It is of the nature of will that it cannot give preponderance to one thing rather than to a similar one, except through a differentiating prin-
5 ciple[1] and a cause which only exist in one of these two similar things; if not, one of the two would happen by chance—and the philosophers argued for the sake of discussion, as if they had conceded that, if the
36 Eternal had a will, a temporal could proceed from an eternal. As the theologians were unable to give a satisfactory answer, they took refuge in the theory that the eternal Will is a quality the nature of which is to differentiate between two similar things, without there being for God a differentiating principle which inclines Him to one of two similar acts; that the eternal Will is thus a quality like warmth which gives heat or like knowledge which comprehends the know-
5 able.[2] But their opponents, the philosophers, answered: It is impossible that this should happen, for two similar things are equivalent for the willer, and his action can only attach itself to the one rather than to the other through their being dissimilar, i.e. through one's having a quality the other has not. When, however, they are similar in every way and when for God there is no differentiating principle at all, His will will attach itself to both of them indifferently and, when this is the case—His will being the cause of His act—the act
10 will not attach itself to the one rather than to the other, it will attach itself either to the two contrary actions simultaneously or to neither of them at all, and both cases are absurd. The philosophers, therefore, began their argument, as if they had it granted to them that all things were equivalent in relation to the First Agent, and they forced them to admit that there must be for God a differentiating principle which precedes Him, which is absurd. When the theologians answered that will is a quality the nature of which is to differentiate the similar from the similar, in so far as it is similar, the philosophers objected that this is not understood or meant by the idea of will. They therefore appear to reject the principle which
37 they granted them in the beginning.[3] This is in short the content of this section. It waves the argument from the original question to the problem of the will; to shift one's ground,[4] however, is an act of sophistry.

Ghazali answers in defence of the theological doctrine of the Divine Will:

There are two objections: First, as to your affirmation that you cannot imagine this, do you know it by the necessity of thought or through deduction? You can claim neither the one nor the other. Your comparison with our will is a bad analogy, which resembles that employed on the question of God's knowledge. Now God's knowledge is different from ours in several ways which we acknowledge. Therefore it is not absurd to admit a difference in the will. Your affirmation is like saying that an essence existing neither outside nor inside the world, neither continuous with the world nor separated from it, cannot be understood, because we cannot understand this according to our human measure; the right answer is that it is the fault of your imagination, for rational proof has led the learned to accept its truth. How, then, will you refute those who say that rational proof has led to establishing in God a quality the nature of which is to differentiate between two similar things? And, if the word 'will' does not apply, call it by another name, for let us not quibble about words! We only use the term 'will' by permission of the Divine Law.[1] It may be objected that by its conventional meaning 'will' designates that which has desire, and God has no desire, but we are concerned here with a question not of words but of fact. Besides, we do not even with respect to our human will concede that this cannot be imagined. Suppose two similar dates in front of a man who has a strong desire* for them, but who is unable to take them both. Surely he will take one of them through a quality in him the nature of which is to differentiate between two similar things. All the distinguishing qualities you have mentioned, like beauty or nearness or facility in taking, we can assume to be absent, but still the possibility of the taking remains. You can choose between two answers: either you merely say that an equivalence in respect to his desire cannot be imagined—but this is a silly answer, for to assume it is indeed possible—or you say that if an equivalence is assumed, the man will remain for ever hungry and perplexed, looking at the dates without taking one of them, and without a power to choose or to will, distinct from his desire.[2] And this again is one of those absurdities which are recognized by the necessity of thought. Everyone, therefore, who studies, in the human and the divine, the real working of the act of choice, must necessarily admit a quality the nature of which is to differentiate between two similar things. 38

I say:

This objection can be summarized in two parts: In the first Ghazali concedes that the human will is such that it is unable to differentiate one thing from a similar one, in so far as it is similar, but that a rational proof forces us to accept the existence of such a quality in the First Agent. To believe that such a quality cannot exist

would be like believing that there cannot exist a being who is neither inside nor outside the world. According to this reasoning, will, which is attributed to the First Agent and to man, is predicated in an equivocal way, like knowledge and other qualities which exist in the Eternal in a different way from that in which they exist in the temporal, and it is only through the prescription of the Divine Law that we speak of the Divine Will. It is clear that this objection cannot have anything more than a dialectical value. For a proof that could demonstrate the existence of such a quality, i.e. a principle determining the existence of one thing rather than that of a similar, would have to assume things willed that are similar; things willed are, however, not similar, but on the contrary opposite, for all opposites can be reduced to the opposition of being and not being, which is the extreme form of opposition; and opposition is the contrary of similarity.[1] The assumption of the theologians that the things to which the will attaches itself are similar is a false one, and we shall speak of it later. If they say: we affirm only that they are similar in relation to the First Willer, who in His holiness is too exalted to possess desires, and it is through desires that two similar things are actually differentiated,[2] we answer: as to the desires whose realization contributes to the perfection of the essence of the willer,[3] as happens with our desires, through which our will attaches itself to the things willed—those desires are impossible in God, for the will which acts in this way is a longing for perfection when there is an imperfection in the essence of the willer; but as to the desires which belong to the essence of the things willed,[4] nothing* new comes to the willer from their realization. It comes exclusively to the thing willed, for instance, when a thing passes into existence from non-existence, for it cannot be doubted that existence is better for it than non-existence. It is in this second way that the Primal Will is related to the existing things, for it chooses for them eternally the better of two opposites, and this essentially and primally. This is the first part of the objection contained in this argument.

In the second part he no longer concedes that this quality cannot exist in the human will, but tries to prove that there is also in us, in the face of similar things, a will which distinguishes one from the other; of this he gives examples. For instance, it is assumed that in front of a man there are two dates, similar in every way, and it is supposed that he cannot take them both at the same time. It is supposed that no special attraction need be imagined for him in either

of them, and that nevertheless he will of necessity distinguish one of them by taking it. But this is an error. For, when one supposes such a thing, and a willer whom necessity prompts to eat or to take the date, then it is by no means a matter of distinguishing between two similar things when, in this condition, he takes one of the two dates. It is nothing but the admission of an equivalence of two similar things; for whichever of the two dates he may take, his aim will be attained and his desire satisfied. His will attaches itself therefore merely to the distinction between the fact of taking one of them and the fact of leaving them altogether; it attaches itself by no means to the act of taking one definite date and distinguishing this act from the act of leaving the other (that is to say, when it is assumed that the desires for the two are equal); he does not prefer the act of taking the one to the act of taking the other, but he prefers the act of taking one of the two, whichever it may be, and he gives a preference to the act of taking over the act of leaving.[1] This is self-evident. For distinguishing* one from the other means giving a preference* to the one over the other, and one cannot give a preponderance to one of two similar 41 things in so far as it is similar to the other—although in their existence as individuals they are not similar since each of two individuals is different from the other by reason of a quality exclusive to it.[2] If, therefore, we assume that the will attaches itself to that special character of one of them, then it can be imagined that the will attaches to the one rather than the other because of the element of difference existing in both. But then the will does not attach itself to two similar objects, in so far as they are similar. This is, in short, the meaning of Ghazali's first objection. Then he gives his second objection against those who deny the existence of a quality, distinguishing two similar objects from one another.

Ghazali says:

The second objection is that we say: You in your system also are unable to do without a principle differentiating between two equals, for the world exists in virtue of a cause which has produced it in its peculiar shape out of a number of possible distinct shapes which are equivalent; why, then, has this cause differentiated some of them? If to distinguish two similar things is impossible, it is irrelevant whether this concerns the act of God, natural causality, or the logical necessity of ideas.[3] Perhaps you will say: the universal order of the world could not be different from what it is; if the world were smaller or bigger than it actually is, this order would not be perfect, and the same may be asserted of the number of spheres and of stars. And perhaps you will say: The big differs from the small and the

many from the few, in so far as they are the object of the will, and therefore they are not similar but different; but human power is too feeble to perceive the modes of Divine Wisdom in its determination of the measures and qualities of things; only in some of them can His wisdom be perceived, as in the obliquity of the ecliptic in relation to the equator, and in the wise contrivance of the apogee and the eccentric sphere.[1] In most cases, however, the secret is not revealed, but the differences are known, and it is not impossible that a thing should be distinguished from another, because the order of the world depends on it; but certainly the times are absolutely indifferent in relation to the world's possibility and its order, and it cannot be claimed that, if the world were created one moment later or earlier, this order could not be imagined; and this indifference is known by the necessity of thought.—But then we answer: Although we can employ the same reasoning against your argument in the matter of different times, for it might be said that God created the world at the time most propitious for its creation, we shall not limit ourselves to this refutation, but shall assume, according to your own principle, a differentiation in two points about which there can be no disagreement: (1) the difference in the direction of spherical movement; (2) the definite place of the poles in relation to the ecliptic in spherical movement.[2] The proof of the statement relating to the poles is that heaven is a globe, moving on two poles, as on two immovable points, whereas the globe of heaven is homogeneous and simple, especially the highest sphere, the ninth,[3] which possesses no stars at all, and these two spheres[4] move on two poles, the north and the south. We now say: of all the opposite points, which are infinite, according to you philosophers, there is no pair one could not imagine as poles. Why then have the two points of the north and south pole been fixed upon as poles and as immovable; and why does the ecliptic not pass through these two poles, so that the poles would become the opposite points of the ecliptic?[5] And if wisdom is shown in the size and shape of heaven, what then distinguishes the place of the poles from others, so that they are fixed upon to serve as poles, to the exclusion of all the other parts and points? And yet all the points are similar, and all parts of the globe are equivalent. And to this there is no answer.

One might say: Perhaps the spot in which the point of the poles is, is distinguished from other points by a special quality, in relation to its being the place of the poles and to its being at rest, for it does not seem to change its place or space or position or whatever one wishes to call it; and all the other spots of the sphere by turning change their position in relation to the earth and the other spheres and only the poles are at rest; perhaps this spot was more apt to be at rest than the others. We answer: If you say so, you explain the fact through a natural differentiation of the parts of the first sphere; the sphere, then, ceases to be homogeneous, and this is in contradiction with your principle, for one of the proofs by which

you prove the necessity of the globular shape of heaven, is that its nature is simple, homogeneous, and without differentiation, and the simplest shape is the globe; for the quadrangle and the hexagon and other figures demand a salience and a differentiation of the angles,[1] and this happens only when its simple nature is added to. But although this supposition of yours is in contradiction with your own theory, it does not break the strength of your opponents' argument; the question about this special quality still holds good, namely, can those other parts accept this quality or not? If the answer is in the affirmative, why then is this quality limited to a few only of those homogeneous parts? If the answer is negative, we reply: the other parts, in so far as they constitute bodies, receiving the form of bodies, are homogeneous of necessity, and there is no justification for attributing this special quality to this spot exclusively on account of its being a part of a body and a part of heaven, for the other parts of heaven participate in this qualification. Therefore its differentiation must rest on a decision by God, or on a quality whose nature consists in differentiating between two similars. Therefore, just as among philosophers the theory is upheld that all times are equivalent in regard to the creation of the world, their opponents are justified in claiming that the parts of heaven are equivalent for the reception of the quality through which stability in position becomes more appropriate than a change of position. And out of this there is no issue.

I say: **42**

This means in brief that the philosophers must acknowledge that there is a quality in the Creator of the world which differentiates between two similars, for it seems that the world might have had another shape and another quantity than it actually has, for it might have been bigger or smaller. Those different possibilities are, therefore, equivalent in regard to the determination of the existence of the world. On the other hand, if the philosophers say that the world can have only one special shape, the special quantity of its bodies and the special number of them it actually has, and that this equivalence of possibilities can only be imagined in relation to the times of temporal creation—since for God no moment is more suitable than another for its creation—they may be told that it is possible to answer this by saying that the creation of the world happened at its most propitious moment. But we, the theologians say, want to show the philosophers two equivalent things of which they cannot affirm that there exists any difference between them; the first is the particular direction of the spherical movement and the second the particular position of the poles, relative to the spheres; for any pair whatever of opposite points, united by a line which passes through the centre of

the sphere, might constitute the poles. But the differentiation of these
44 two points, exclusive of all other points which might just as well be the poles of this identical sphere cannot happen except by a quality differentiating between two similar objects. If the philosophers assert that it is not true that any other place on the sphere might be the seat for these poles, they will be told: such an assertion implies that the
5 parts of the spheres are not homogeneous and yet you have often said that the sphere is of a simple nature and therefore has a simple form, viz. the spherical. And again, if the philosophers affirm that there are spots on the sphere which are not homogeneous, it will be asked how these spots came to be of a heterogeneous nature; is it because they are a body or because they are a celestial body? But the absence of homogeneity cannot be explained in this way. Therefore—Ghazali says—just as among philosophers the theory is upheld that all times are equivalent in regard to the creation of the world,
10 the theologians are justified in claiming that the parts of heaven are equivalent in regard to their serving as poles, and that the poles do not seem differentiated from the other points through a special position or through their being in an immovable place, exclusive of all other places.

This then in short is the objection; it is, however, a rhetorical one, for many things which by demonstration can be found to be necessary seem at first sight merely possible.[1] The philosophers' answer is that they assert that they have proved that the world is composed of five
45 bodies: a body neither heavy nor light, i.e. the revolving spherical body of heaven[2] and four other bodies, two of which are earth, absolutely heavy, which is the centre of the revolving spherical body, and fire, absolutely light, which is seated in the extremity of the revolving sphere; nearest to earth is water, which is heavy relatively
5 to air, light relatively to earth; next to water comes air, which is light relatively to water, heavy relatively to fire. The reason why earth is absolutely heavy is that it is farthest away from the circular movement, and therefore it is the fixed centre of the revolving body; the reason why fire is absolutely light is that it is nearest to the revolving sphere; the intermediate bodies are both heavy and light,
10 because they are in the middle between the two extremes, i.e. the farthest point and the nearest.[3] If there were not a revolving body, surely there would be neither heavy nor light by nature, and neither high nor low by nature,[4] and this whether absolutely or relatively; and the bodies would not differ by nature in the way in

which, for instance, earth moves by nature to its specific place and fire moves by nature to another place, and equally so the intermediary bodies. And the world is only finite, because of the spherical 46
body, and this because of the essential and natural finiteness of the spherical body, as one single plane circumscribes it.[1] Rectilinear bodies are not essentially finite,[2] as they allow of an increase and decrease; they are only finite because they are in the middle of a body that admits neither increase nor decrease, and is therefore 5
essentially finite. And, therefore, the body circumscribing the world cannot but be spherical, as otherwise the bodies would either have to end in other bodies, and we should have an infinite regress, or they would end in empty space, and the impossibility of both suppositions has been demonstrated.[3] He who understands this knows that every possible world imaginable can only consist of these bodies, and that bodies have to be either circular—and then they are neither heavy nor light—or rectilinear—and then they are either heavy or 10
light, i.e. either fire or earth or the intermediate bodies; that these bodies have to be either revolving, or surrounded by a revolving periphery, for each body either moves from, towards, or round the centre; that by the movements of the heavenly bodies to the right and to the left[4] all bodies are constituted and all that is produced 47
from opposites is generated; and that through these movements the individuals of these four bodies never cease being in a continual production and corruption.[5] Indeed, if a single one of these movements should cease, the order and proportion of this universe would disappear, for it is clear that this order must necessarily depend on the actual number of these movements—for if this were smaller or greater, either the order would be disturbed, or there would be another 5
order—and that the number of these movements is as it is, either through its necessity for the existence of this sublunary world, or because it is the best.[6]

Do not ask here for a proof for all this, but if you are interested in science, look for its proof, where you can find it. Here, however, listen to theories which are more convincing than those of the theologians and which, even if they do not bring you complete proof, 10
will give your mind an inclination to lead you to proof through scientific speculation. You should imagine that each heavenly sphere is a living being, in so far as it possesses a body of a definite measure and shape and moves itself in definite directions, not at random. Anything of this nature is necessarily a living being; i.e.

when we see a body of a definite quality and quantity move itself in space, in a definite direction, not at random, through its own power,
48 not through an exterior cause, and move in opposite directions at the same time, we are absolutely sure that it is a living being, and we said only 'not through an exterior cause' because iron moves towards a magnet when the magnet is brought to it from the outside—and besides, iron moves to a magnet from any direction whatever.[1] The heavenly bodies, therefore, possess places which are poles by nature, and these bodies cannot have their poles in other places, just as earthly animals have particular organs in particular parts of their bodies for particular actions, and cannot have them in other places, e.g. the organs of locomotion, which are located in definite parts. The poles represent the organs of locomotion in animals of spherical form, and the only difference in this respect between spherical and non-spherical animals is that in the latter these organs differ in both shape and power, whereas in the former they only differ in power.[2] For this reason it has been thought on first sight that they do not differ at all, and that the poles could be in any two points on the
49 sphere. And just as it would be ridiculous to say that a certain movement in a certain species of earthly animal could be in any part whatever of its body, or in that part where it is in another species, because this movement has been localized in each species in the place where it conforms most to its nature, or in the only place where this animal can perform the movement, so it stands with the differentiation in the heavenly bodies for the place of their poles. For the heavenly bodies are not one species and numerically many, but they form a plurality in species, like the plurality of different individuals of animals where there is only one individual in the species.[3]

Exactly the same answer can be given to the question why the heavens move in different directions: that, because they are animals, they must move in definite directions, like right and left, before and behind, which are directions determined by the movements of animals, and the only difference between the movements of earthly animals and those of heavenly bodies is that in the different animals these movements are different in shape and in power, whereas in the heavenly animals they only differ in power. And it is for this reason that Aristotle thinks that heaven possesses the directions of right and left, before and behind, high and low.[4] The diversity of the heavenly bodies in the direction of their movements rests on their diversity of species, and the fact that this difference in the directions

of their movements forms the specific differentia of their species is 50
something proper to them. Imagine the first heaven as one identical animal whose nature obliges it—either by necessity or because it is for the best—to move with all its parts in one movement from east to west. The other spheres are obliged by their nature to have the opposite movement. The direction which the body of the universe is 5
compelled to follow through its nature is the best one, because its body is the best of bodies and the best among the moving bodies must also have the best direction. All this is explained here in this tentative way, but is proved apodictically in its proper place. This is also the manifest sense of the Divine Words, 'There is no changing the words of God',[1] and 'There is no altering the creation of God'.[2] If you want to be an educated man, proceeding by proof, you should 10
look for the proof of this in its proper place.

Now if you have understood all this, it will not be difficult for you to see the faults in Ghazali's arguments here about the equivalence of the two opposite movements in relation to each heavenly body and to the sublunary world. On first thoughts it might be imagined that the movement from east to west might also belong to other spheres besides the first, and that the first sphere might equally well move from west to east. You might as well say* that the crab could be imagined as having the same direction of movement as man. But, 51
as a matter of fact, such a thought will not occur to you about men and crabs, because of their difference in shape, whereas it might occur to you about the heavenly spheres, since they agree in shape.[3] He who contemplates a product of art does not perceive its wisdom if he does not perceive the wisdom of the intention embodied in it, 5
and the effect intended.[4] And if he does not understand its wisdom, he may well imagine that this object might have any form, any quantity, any configuration of its parts, and any composition whatever. This is the case with the theologians in regard to the body of the heavens, but all such opinions are superficial. He who has such beliefs about products of art understands neither the work nor the 10
artist, and this holds also in respect of the works of God's creation. Understand this principle, and do not judge the works of God's creation hastily and superficially—so that you may not become one of those about whom the Koran says: 'Say, shall we inform you of those who lose most by their works, those who erred in their endeavour after the life of this world and who think they are doing good deeds?'[5] May God make us perspicacious and lift from us the veils of

52 ignorance; indeed He is the bounteous, the generous! To contemplate the various actions of the heavenly bodies is like contemplating the kingdom of heaven, which Abraham contemplated, according to the words of the Koran: 'Thus did we show Abraham the kingdom of heaven and of the earth, that he should be of those who are sure.'[1]

5 And let us now relate Ghazali's argument about the movements.

Ghazali says:

The second point in this argument concerns the special direction of the movement of the spheres which move partially from east to west, partially in the opposite direction, whereas the equivalence of the directions in relation to their cause is exactly the same as the equivalence of the times. If it is said: If the universe revolved in only one direction, there would never be a difference in the configuration of the stars, and such relations of the stars as their being in trine, in sextile, and in conjunction[2] would never arise, but the universe would remain in one unique position without any change; the difference of these relations, however, is the principle of all production in the world—we answer: Our argument does not concern the difference in direction of movement; no, we concede that the highest sphere moves from east to west and the spheres beneath it in the opposite direction, but everything that happens in this way would happen equally if the reverse took place, i.e. if the highest sphere moved from west to east and the lower spheres in the opposite direction. For all the same differences in configuration would arise just as well. Granted that these movements are circular and in opposite directions, both directions are equivalent; why then is the one distinguished from the other, which is similar to it?[3] If it is said: as the two directions are opposed and contrary, how can they be similar?—we answer: this is like saying 'since before and after are opposed in the existing world, how could it be claimed that they are equivalent?' Still, it is asserted by you philosophers that the equivalence of times, so far as the possibility of their realization and any purpose one might imagine in their realization is concerned, is an evident fact. Now, we regard it as equally evident that spaces, positions, situations, and directions are equivalent so far as concerns their receiving movement and any purpose that might be connected with it. If therefore the philosophers are allowed to claim that notwithstanding this equivalence they are different, their opponents are fully justified in claiming the same in regard to the times.*

53 I say:

From what I have said previously, the speciousness of this argument and the way in which it has to be answered will not be obscure to you. All this is the work of one who does not understand the exalted natures of the heavenly bodies and their acts of wisdom for the sake of which they have been created, and who compares God's knowledge with the knowledge of ignorant man.

Ghazali says:

If it is said: as the two directions are opposed and contrary, how can they be similar?—we answer: this is like saying 'since before and after in the existing world are opposed, how could it be claimed that they are equivalent?' Still, it is asserted by you philosophers that the equivalence of times so far as the possibility of their realization, and any purpose one might imagine in their realization is concerned, is an evident fact. Now, we regard it as equally evident that spaces, positions, situations, and directions are equivalent so far as concerns their receiving the movement and any purpose that might be connected with it.

I say:

The falsehood of this is self-evident. Even if one should admit that the possibilities of man's existence and non-existence are equivalent in the matter out of which he has been created, and that this is a proof for the existence of a determining principle which prefers his existence to his non-existence, still it cannot be imagined that the possibilities of seeing and not seeing are equivalent in the eye.[1] Thus no one can claim that the opposite directions are equivalent, although he may claim that the substratum for both is indifferent, 54
and that therefore out of both directions similar actions result.[2] And the same holds good for before and after: they are not equivalent, in so far as this event is earlier and that event later; they can only be claimed to be equivalent so far as their possibility of existence is concerned.[3] But the whole assumption is wrong: for essential opposites also need essentially opposite substrata and a unique substratum giving rise to opposite acts at one and the same time is an impossibility.[4] The philosophers do not believe that the possibilities of a thing's existence and of its non-existence are equivalent at one and the same time; no, the time of the possibility of its existence is different from the time of the possibility of its non-existence,[5] time for them is the condition for the production of what is produced, and for the corruption of what perishes.[6] If the time for the possibility of the existence of a thing and the time for the possibility of its non-existence were the same, that is to say in its proximate matter, its existence would be vitiated, because of the possibility of its non-existence, and the possibility of its existence and of its non-existence would be dependent only on the agent, not on the substratum.[7]

Thus he who tries to prove the existence of an agent in this way gives only persuasive, dialectical arguments, not apodictic proof. It is believed that Farabi and Avicenna followed this line to establish

that every act must have an agent, but it is not a proof of the ancient philosophers, and both of them merely took it over from the theologians of our religion.[1] In relation, however, to the temporal creation of the world—for him who believes in it—before and after cannot
55 even be imagined,[2] for before and after in time can only be imagined in relation to the present moment,[3] and as, according to the theologians, there was before the creation of the world no time, how could there be imagined something preceding the moment when the world was created? A definite moment cannot be assigned for the creation of the world, for either time did not exist before it, or there
5 was an infinite time, and in neither case could a definite time be fixed to which the Divine could attach itself.[4] Therefore it would be more suitable to call this book 'Incoherence' without qualification rather than 'The Incoherence of the Philosophers', for the only profit it gives the reader is to make him incoherent.

Ghazali says:

If, therefore, the philosophers are allowed to claim that, notwithstanding this equivalence, they are different, their opponents are fully justified
10 in claiming the same in regard to times.

I say:

He wants to say: If the philosophers are justified in claiming a difference in the direction of movement, the theologians have the right to assert a difference in times, notwithstanding their belief in their equivalence. This is only a verbal argument, and does not refer to the facts themselves, even if one admits an analogy between the opposite directions and the different times,* but this is often objected to, because there is no analogy between this difference in times and directions.[5] Our adversary, however, is forced to admit that there is
56 an analogy between them, because they are both claimed to be different, and both to be equivalent! These, therefore, are one and all only dialectical arguments.

Ghazali says:

The second objection[6] against the basis of their argument is that the philosophers are told: 'You regard the creation of a temporal being by an eternal as impossible, but you have to acknowledge it too, for there are new events happening in the world and they have causes. It is absurd to
5 think that these events lead to other events *ad infinitum*, and no intelligent person can believe such a thing. If such a thing were possible, you need not acknowledge a creator and establish a necessary being on whom possible existences depend. If, however, there is a limit for those events in which their sequence ends, this limit will be the eternal and then

indubitably you too acknowledge the principle that a temporal can proceed from an eternal being.'[1]

I say:

If the philosophers had introduced the eternal being into reality from the side of the temporal by this kind of argument, i.e. if they had admitted that the temporal, in so far as temporal, proceeds from an eternal being, there would be no possibility of their avoiding the difficulty in this problem. But you must understand that the philosophers permit the existence of a temporal which comes out of a temporal being *ad infinitum* in an accidental way, when this is repeated in a limited and finite matter—when, for instance, the corruption of one* of two things becomes the necessary condition for the existence 57
of the other. For instance, according to the philosophers it is necessary that man should be produced from man on condition that the anterior man perishes so as to become the matter for the production of a third.[2] For instance, we must imagine two men of whom the first produces the second from the matter of a man who perishes; when the second becomes a man himself, the first perishes, then the second man produces a third man out of the matter of the first, and then the second perishes and the third produces out of his matter a fourth, and so we can imagine in two matters an activity continuing *ad infinitum*, without any impossibility arising. And this happens as long as the agent lasts, for if this agent has neither beginning nor end for his existence, the activity has neither beginning nor end for its existence, as it has been explained before.[3] And in the same way you may imagine this happening in them in the past: When a man exists, there must before him have been a man who produced him and a man who perished, and before this second man a man who produced him and a man who perished, for everything that is produced in this way is, when it depends on an eternal agent, of a circular nature in which no actual totality can be reached.[4] If, on the other hand, a man were produced from another man out of infinite matters, or there were an infinite addition of them, there would be an impossi- 58
bility, for then there could arise an infinite matter and there could be an infinite whole. For if a finite whole existed to which things were added *ad infinitum* without any corruption taking place in it, an infinite whole could come into existence, as Aristotle proved in his *Physics*.[5] For this reason the ancients introduce an eternal absolutely unchanging being, having in mind not temporal beings, proceeding from him in so far as they are temporal, but beings

proceeding from him as being eternal generically,[1] and they hold that this infinite series is the necessary consequence of an eternal agent, for the temporal needs for its own existence only a temporal cause.[2] Now there are two reasons why the ancients introduce the existence of an eternal numerically unique being which does not suffer any change. The first is that they discovered that this revolving being is eternal, for they discovered that the present individual is produced through the corruption of its predecessor and that the corruption of this previous individual implies the production of the one that follows it, and that it is necessary that this everlasting change should proceed from an eternal mover and an eternal moved body, which does not change in its substance,[3] but which changes only in place so far as concerns its parts,[4] and approaches certain of the transitory things and recedes from certain of them, and this is the cause of the corruption of one half of them and the production of the other half.[5] And this heavenly body is the being that changes in place only, not in any of the other kinds of change,[6] and is through its temporal activities the cause of all things temporal; and because of the continuity of its activities which have neither beginning nor end, it proceeds from a cause which has neither beginning nor end. The second reason why they introduce an eternal being absolutely without body and matter is that they found that all the kinds of movement depend on spatial movement,[7] and that spatial movement depends on a being moved essentially by a prime mover, absolutely unmoved, both essentially and accidentally,[8] for otherwise there would exist at the same time an infinite number of moved movers, and this is impossible.[9] And it is necessary that this first mover should be eternal, or else it would not be the first. Every movement, therefore, depends on this mover and its setting in motion essentially, not accidentally. And this mover exists simultaneously with each thing moved, at the time of its motion, for a mover existing before the thing moved*—such as a man producing a man—sets only in motion accidentally, not essentially; but the mover who is the condition of man's existence from the beginning of his production till its end, or rather from the beginning of his existence till its end, is the prime mover. And likewise his existence is the condition for the existence of all beings and the preservation[10] of heaven and earth and all that is between them.[11] All this is not proved here apodictically, but only in the way we follow here and which is in any case more plausible for an impartial reader than the arguments of our opponents.

If this is clear to you, you certainly are in no need of the subterfuge by which Ghazali in his argument against the philosophers tries to conciliate them with their adversaries in this matter; indeed these artifices will not do, for if you have not understood how the philosophers introduce an eternal being into reality, you have not understood how they settle the difficulty of the rise of the temporal out of the eternal; they do that, as we said, either through the medium of a being eternal in its essence but generable and corruptible in its particular movements, not, however, in its universal circular movement,[1] or through the medium of what is generically eternal[2]—i.e. has neither beginning nor end—in its acts.

Ghazali answers in the name of the philosophers:

The philosophers may say, 'we do not consider it impossible that any temporal being, whatever it may be, should proceed from an eternal being, but we regard it as impossible that the first temporal should proceed from the eternal, as the mode of its procession does not differ from that which precedes it, either in a greater inclination* towards existence or through the presence of some particular time, or through an instrument, condition, nature, accident, or any cause whatever which might produce a new mode. If this therefore is not the first temporal, it will be possible that it should proceed from the eternal, when another thing proceeds from it, because of the disposition of the receiving substratum, or because the time was propitious or for any other reason.'[3]

Having given this reply on the part of the philosophers, Ghazali answers it:

This question about the actualization of the disposition, whether of the time and of any new condition which arises in it, still holds good, and we must either come to an infinite regress or arrive at an eternal being out of which a first temporal being proceeds.

I say:

This question is the same question all over again as he asked the philosophers first,[4] and this is the same kind of conclusion as he made them draw then, namely that a temporal proceeds from an eternal, and having given as their answer something which does not correspond with the question, i.e. that it is possible that a temporal being should proceed from the Eternal without there being a first temporal being, he turns the same question against them again. The correct answer to this question was given above: the temporal proceeds from the First Eternal, not in so far as it is temporal but in so far as it is eternal, i.e. through being eternal generically, though temporal in

its parts. For according to the philosophers an eternal being out of which a temporal being proceeds essentially[1] is not the First Eternal, but its acts, according to them, depend on the First Eternal; i.e.
62 the actualization of the condition for activity of the eternal, which is not the First Eternal, depends on the First Eternal in the same way as the temporal products depend on the First Eternal and this is a dependence based on the universal, not on individuals.[2]

After this Ghazali introduces an answer of the philosophers, in one of the forms in which this theory can be represented, which amounts to this: A temporal being proceeding from an eternal can only be represented by means of a circular movement which resembles the eternal by not having beginning or end and which resembles the temporal in so far as each part of it is transient, so that this movement through the generation of its parts is the principle of temporal things, and through the eternity of its totality the activity of the eternal.

Then Ghazali argues against this view, according to which in the opinion of the philosophers the temporal proceeds from the First Eternal, and says to them:

Is this circular movement temporal or eternal? If it is eternal, how does it become the principle for temporal things? And if it is temporal, it will need another temporal being and we shall have an infinite regress. And
63 when you say that it partially resembles the eternal, partially the temporal, for it resembles the eternal in so far as it is permanent and the temporal in so far as it arises anew, we answer: Is it the principle of temporal things, because of its permanence, or because of its arising anew? In the former case, how can a temporal proceed from something because of its permanence? And in the latter case, what arises anew will need a cause for its arising anew, and we have an infinite regress.[3]

I say:

This argument is sophistical. The temporal does not proceed from it in so far as it is eternal, but in so far as it is temporal; it does not need, however, for its arising anew a cause arising anew, for its arising anew is not a new fact, but is an eternal act, i.e. an act without beginning or end. Therefore its agent must be an eternal agent, for an eternal act has an eternal agent, and a temporal act a temporal agent. Only through the eternal element in it can it be understood that movement has neither beginning nor end, and this is meant by its permanence, for movement itself is not permanent, but changing.

And since Ghazali knew this, he said:

In order to elude this consequence the philosophers have a kind of artifice which we will expose briefly.

Ghazali says: 64

THE SECOND PROOF OF THE PHILOSOPHERS CONCERNING THIS PROBLEM[1]

They assert that he who affirms that the world is posterior to God and God prior to the world cannot mean anything but that He is prior not temporally but essentially,[2] like the natural priority of one to two, although they can exist together in temporal existence, or like the priority of cause to effect, for instance the priority of the movement of a man to the movement of his shadow which follows him, or the movement of the hand to the movement of the ring, or the movement of the hand in the water to the movement of the water, for all these things are simultaneous, but the one is cause, the other effect, for it is said that the shadow moves through the movement of the man and the water through the hand in the water, and the reverse is not said although they are simultaneous.[3] If this is what you mean by saying that God is prior to the world, then it follows that they must both either be temporal or eternal, for it is absurd that the one should be temporal and the other eternal.[4] If it is meant that God is prior to the world and to time, not essentially, but temporally, then there was, before the existence of the world and of time, a time in which the world was non-existent, since non-existence preceded the world and God preceded it during a long duration which had a final term but no initial one, and then there was before time an infinite time, which is self-contradictory. Therefore the assertion that time had a beginning is absurd. And if time—which is the expression of the measure of movement—is eternal, movement must be eternal. And the necessity of the eternity of movement implies the necessity of the eternity of the thing in motion, through the duration of which time endures.

I say:

The mode of their reasoning which he reproduces does not constitute a proof. It amounts to saying that the Creator, if He is prior to the world, must either be prior not in time, but in causation, like the priority of a man to his shadow, or prior in time, like a builder to a wall.[5] If He is prior in the same way as the man is prior to his shadow, 65
and if the Creator is eternal, then the world too is eternal. But if He is prior in time, then He must precede the world by a time which has no beginning, and time will be eternal, for if there is a time before the actual, its starting-point cannot be imagined. And if time is eternal, movement too is eternal, for time cannot be understood without motion. And if motion is eternal, the thing in motion will be eternal, and its mover will necessarily be eternal too. But this proof is unsound, for it is not of the nature of the Creator to be in time, whereas it belongs to the nature of the world to be so; and for this

very reason it is not true that He is either simultaneous with it or prior to it in time or in causation.[1]

Ghazali says:

The objection to this is: Time is generated and created, and before it there was no time at all. The meaning of our words that God is prior to the world and to time is: He existed without the world and without time, then He existed and with Him there was the world and there was time. And the meaning of our words that He existed without the world is: the existence of the essence of the Creator and the non-existence of the essence of the world, and nothing else. And the meaning of our words that He existed and with Him there was the world is: the existence of the two essences, and nothing else. And the meaning of priority: the uniqueness of His existence, and nothing else. And the world is like a singular person; if we should say, for instance: God existed without Jesus, then He existed with Jesus—these words contain nothing but, first, the existence of an essence and the non-existence of an essence, then, the existence of two essences, and there is no need to assume here a third essence, namely time, although imagination cannot desist from assuming it. But we should not heed the errors of the imagination.[2]

I say:

These words are erroneous and mistaken, for we have already proved that there are two kinds of existence: one in the nature of which* there is motion and which cannot be separated from time; the other in the nature of which there is no motion and which is eternal and cannot be described in terms of time. The first is known by the senses and by reason; the existence of the second—in the nature of which there is neither motion nor change—is known by proof to everyone who acknowledges that each motion needs a mover and each effect a cause, and that the causes which move each other do not regress infinitely, but end in a first cause which is absolutely unmoved. And it has also been established that the entity in the nature of which there is no movement is the cause of the entity in the nature of which there is movement. And it has been proved also that the entity in the nature of which there is motion cannot be separated from time, and that the entity in the nature of which there is no movement is entirely free from time. Therefore the priority of the one entity over the other is based neither on a priority in time, nor on the priority of that kind of cause and effect, which belongs to the nature of things in motion, like the priority of a man to his shadow. For this reason anyone who compares the priority of the unmoved being to the thing in motion to the priority existing be-

tween two things in motion is in error; since it is only true of each one in pairs of moving things that, when it is brought in relation to the other, it is either simultaneous with it or prior or posterior in time to it. It is the later philosophers of Islam who made this mistake, since they enjoyed but slight comprehension of the doctrine of the ancients. So the priority of this one being to the other is the priority of the unchanging timeless existence to the changing existence which is in time, and this is an altogether different type of priority. 68 It is therefore not true of these existences that they are simultaneous, or that the one precedes the other, and Ghazali's observation that the priority of the Creator to the world is not a temporal priority is true. But the posteriority of the world to the Creator, since He does not precede the world in time, can only be understood as the posteriority of effect to cause,[1] for posteriority and priority are opposites which are necessarily in one genus, as has been shown in the sciences.[2] Since therefore this priority is not in time, the posteriority also cannot be in time, and we have the same difficulty all over again: how can the effect be delayed after the cause when the conditions of acting are fulfilled?[3] The philosophers, however, since they do not recognize a beginning in the totality of this existence in motion, are not touched by this difficulty, and it is possible for them to indicate in what way the temporal beings proceed from the eternal. One of their proofs* that existence in motion has no beginning, and that in its totality it does not start, is that, when it is assumed to start, it is assumed to exist before its existence, for to start is a movement, and movement is of necessity in the thing in motion,[4] equally whether the movement is regarded as taking place in time or at an instant.[5] Another proof is that everything that becomes has the potentiality of becoming before it actually becomes, although the theologians deny this (a 69 discussion with them on this point will follow); now potentiality is a necessary attribute of being in motion, and it follows necessarily that, if it were assumed to become, it would exist before its existence.[6] What we have here are only dialectical arguments; they have, however, a much greater plausibility than what the theologians advance.

As for Ghazali's words:

If we should say, for instance, that God existed without Jesus, and then He existed with Jesus, these words contain nothing but, first, the existence of an essence and the non-existence of an essence, then, the existence of two essences, and there is no need to assume here a third essence, namely time.

I say:

This is true, provided that Jesus' posteriority is not regarded as an essential temporal posteriority, but, if there is a posteriority, it is an accidental posteriority, for time precedes this posterior entity*, i.e. it is a necessity of Jesus' existence that time should precede Him and that His existence should have begun, but the world is not subject to such a necessity, except in so far as it is a part of a moving existence beyond which time extends in two directions,[1] as happens to Jesus* and other transitory individuals.[2] Nothing of this is proved here; here it is simply explained that the objection is not valid. In addition, what he says afterwards of the proofs of the philosophers is untrue.

70 Answering in the name of the philosophers, Ghazali says:

One might say that our expression 'God existed without the world' means a third thing, besides the existence of one being and the non-existence of another, because, if we should suppose that in the future God should exist without the world, there would be in the future the existence of one being and the non-existence of another, still it would not be right to say 'God existed without the world', but we should say 'God will exist without the world', for only of the past do we say 'God existed without the world'; and between the words 'existed' and 'will exist' there is a difference, for they cannot replace each other. And if we try to find out where the difference between the two sentences lies, it certainly does not lie in the words 'existence of one being' and 'non-existence of another being', but in a third entity, for if we say of the non-existence of the world in the future 'God was without the world', it will be objected: this is wrong, for 'was' refers only to the past. This shows therefore that the word 'was' comprises a third entity, namely the past, and the past by itself is time, and through another existent it is movement, for movement passes only through the passing of time. And so it follows necessarily that, before the world, a time finished which terminated in the existence of the world.[3]

I say:

In this in brief he shows that when it is said 'such-and-such was without such-and-such' and then 'such-and-such was with such-and-such' a third entity is understood, namely time. The word 'was' shows this, because of the difference in the meaning of this concept in the past and in the future, for if we assume the existence of one thing with the non-existence of another in the past, we say 'such a thing existed without such a thing', but when we assume the non-existence of the one with the existence of the other in the future, we 71 say 'such a thing will exist without such a thing', and the change in meaning implies that there is here a third entity. If in our expression

'such-and-such existed without such-and-such' the word 'existed' did not signify an entity, the word 'existed' would not differ from 'will exist'. All this is self-evident, but it is only unquestionable in relation to the priority and posteriority of things which are by nature in time. Concerning the timeless the word 'was' and the like indicate in such a proposition nothing but the copula between predicate and subject, when we say, for example, 'God was indulgent and compassionate';[1] and the same holds when either predicate or subject is timeless, e.g. when we say 'God was without the world, then God was with the world'. Therefore for such existents the time-relation to which he refers* does not hold. This relation is, however, unquestionably real when we compare the non-existence of the world with its existence, for if the world is in time, the non-existence of the world has to be in time too. And since the non-existence and the existence of the world cannot be in one and the same time, the non-existence must precede; the non-existence must be prior and the world posterior to it, for priority and posteriority in the moving can only be understood in this relation to time. The only flaw in this argument is 72 to assume this relation between God and the world. Only in this point is the argument which Ghazali relates faulty and does it fail to constitute a proof.

Then Ghazali gives the theologians' objection to this argument of the philosophers:[2]

The primitive meaning of the two words is the existence of one thing and the non-existence of another. The third element which is the connexion* between the two words is a necessary relation to us. The proof is that, if we should suppose a destruction of the world in the future and afterwards a second existence for us, we should then say 'God was without the world', and this would be true, whether we meant its original non-existence or the second non-existence, its destruction after its existence. And a sign that this is a subjective relation is that the future can become past and can be indicated by the word 'past'.[3] All this[4] is the consequence of the inability of our imagination to imagine the beginning of a thing without something preceding it, and this 'before' of which the imagination cannot rid itself is regarded as a really existing thing, namely time. This resembles the inability of the imagination to admit a limited body, e.g. overhead, without anything beyond its surface, so that it is imagined that behind the world there is a space either occupied or empty; and when it is said there is above the surface of the world no beyond and no farther extension, this is beyond the grasp of the imagination. Likewise, when it is said that there is no real anterior to the existence of the world, the imagination refuses to believe it. But the imagination may be called false in allow-

ing above the world an empty space which is an infinite extension by our saying to it: empty space cannot be understood by itself, for extension is
73 the necessary attribute of a body whose sides comprise space;[1] a finite body implies the finiteness of extension, which is its attribute, and the limitation of occupied space; empty space is unintelligible, therefore there is neither empty nor occupied space behind the world, although the imagination cannot admit this. And in the same way as it is said that spatial extension is an attribute of body, temporal extension is an attribute of motion, for time is the extension of movement just as the space between the sides of a body is the extension of space. And just as the proof that the
5 sides of a body are finite prevents the admission of a spatial extension behind the world, so the proof of the finite character of movement in both directions prevents the supposition of a temporal extension behind the world, although the imagination, subject to its illusion and supposition, admits it and does not hold back from it. There is no difference between temporal extension, which is apprehended as divided through the relation of before and after, and spatial extension, which is apprehended as divided through the relation of high and low.[2] If it is therefore permissible to admit a highest point above which there is nothing, it is equally permissible to admit a beginning, not preceded by anything real, except through an
10 illusion similar to that which permits a beyond for the highest space. This is a legitimate consequence; notice it carefully, as the philosophers themselves agreed that behind the world there is neither empty nor occupied space.

I say:

There are two parts to this objection; the first is that, when we imagine the past and the future, i.e. the prior and the posterior, they are two things existing in relation to our imagination, because we can imagine a future event as becoming past and a past event as having been future. But if this is so, past and future are not real things in themselves and do not possess existence outside the soul; they are only constructs of the soul. And when movement is annihi-
74 lated, the relation and measure of time will not have sense any more.

The answer is that the necessary connexion of movement and time is real and time is something the soul constructs in movement,[3] but neither movement nor time is annihilated: they are only abolished in those things which are not subject to motion, but in the existence
5 of moving things or in their possible existence time inheres necessarily. For there are only two kinds of being, those that are subject to motion and those that are not, and the one kind cannot be converted into the other, for otherwise a conversion of the necessary into the possible would become possible.[4] For if movement were impossible and then afterwards occurred, the nature of things which are not sub-

ject to motion would have changed into the nature of things subject to motion, and this is impossible. This is a consequence of the fact that motion inheres necessarily in a substratum. If movement were possible before the existence of the world, the things which are subject to movement would be necessarily in time, for movement is only possible in what is subject to rest,[1] not in absolute non-existence, for in absolute non-existence there is no possibility whatever, or one would have to admit that absolute non-existence could be converted into existence.[2] Therefore, the non-existence or privation[3] which necessarily precedes the occurrence of a thing has to be connected with a substratum, and will be disconnected from it when the substratum actually receives this occurrence, as happens with all contraries. For instance, when a warm thing becomes cold, the essence of warmth does not change into coldness; it is only the receptacle and the substratum of warmth that exchange their warmth for coldness.

The second part of this objection—and it is the most important of these objections—is sophistical and malicious. It amounts to saying that to imagine something before the beginning of this first movement (which is not preceded by any moving body) is like the illusion that the end of the world, for example, its highest part, ends necessarily either in another body or in empty space, for extension is a necessary attribute of body, as time is a necessary attribute of movement. And if it is impossible that there should be an infinite body, it is impossible that there should be an infinite extension, and, if it is impossible that there should be infinite extension, it is impossible that every body should end in another body or in something which has the potentiality of extension, i.e. for instance, emptiness, and that this should continue without end.[4] And the same applies to movement which has time as a necessary attribute, for if it is impossible that there should be infinite past movements* and there exists therefore a first movement with a finite initial term, it is impossible that there should exist a 'before' before it, for, if so, there would be another movement before the first.

This objection is, as we said, malicious, and belongs to the class of sophistical substitutions—you will recognize what I mean if you have read the book *On sophistic refutations*.[5] In other words, Ghazali treats the quantity which has no position and does not form a totality, i.e. time and motion, as the quantity which possesses position and totality, i.e. body.[6] He makes the impossibility of endlessness in the latter a proof of its impossibility in the former, and he

deals with the act of the soul when it imagines an increase in the one quantity which is assumed to be actual, i.e. body, as if it concerned both quantities. This is a manifest error. For to imagine an increase in actual spatial magnitude, so that it must end in another actual spatial magnitude, is to imagine something which does not exist in the essence and definition of spatial magnitude, but to imagine priority and posteriority in a movement that occurs is to imagine something that belongs to its essence. For a movement can only occur in time, i.e. time has to pass beyond its beginning. For this reason one cannot represent a time the initial term of which is not the final term of another time, for the definition of 'the instant' is that it is the end of the past and the beginning of the future,[1] for the instant is the present which necessarily is the middle between the past and the future, and to represent a present which is not preceded by a past is absurd.[2] This, however, does not apply to the point, for the point is the end of the line[3] and exists at the same time as the line, for the line is at rest. Therefore one can imagine a point which is the beginning of a line[4] without its being the end of another line, but the instant cannot exist without the past and the future, and exists necessarily after the past and before the future, and what cannot subsist in itself cannot exist before the existence of the future without being the end of the past. The cause of this error is the comparison of the instant with the point. The proof that each movement which occurs is preceded by time is this: everything must come to exist out of a privation, and nothing can become in the instant—of which it can be truly said that its becoming is a vanishing[5]—and so it must be true that its privation must be in another moment than that in which it itself exists, and there is time between each pair of instants, because instant is not continuous with instant, nor point continuous with point.[6] This has been proved in the sciences. Therefore before the instant in which the movement occurs there must necessarily be a time, because, when we represent two instants in reality, there must necessarily be time between them.

And what is said in this objection that 'higher' resembles 'before' is not true, nor does the instant resemble the point, nor the quantity which possesses position the quantity which does not possess position.[7] He who allows the existence of an instant which is not a present, or of a present which is not preceded by a past, denies time and the instant, for he assumes an instant as having the description which we have mentioned,[8] and then assumes a time which has no

beginning—which is a self-contradictory assumption. It is, therefore, wrong to ascribe to an act of imagination the fact that there is a prior event for every occurrence, for he who denies priority denies the event in time. The contrary is the case with the man who denies the real character of the high*, for he denies the absolutely high and, when he denies the absolutely high, he denies also the absolutely low,[1] and when these two are denied, also the heavy and the light are denied[2] and the act of the imagination that a body with straight dimensions must end in another body is not false; no, this is a necessary truth, for the body with straight dimensions has the possibility of increasing, and what has this possibility is not limited by nature.[3] Therefore the body with straight surfaces must end in the circumscribing circular body, since this is the perfect body which is liable neither to increase nor to decrease. Therefore when the mind seeks to imagine that the circular body must end in another body, it imagines the impossible. These are all matters of which the theologians and those who do not start their inquiry in the proper scientific order are unaware.

Further, the relation between time and motion is not the same as that between spatial limit and spatial magnitude, for the spatial limit is an attribute of spatial magnitude, in so far as it inheres in it, in the way that the accident inheres in its substratum and is individualized by the individuality of its substratum and is indicated by pointing 79 at its substratum and by its being in the place in which its substratum is.[4] But this is not the case with the necessary relation between time and motion. For the dependence of time on motion is much like the dependence of number on the thing numbered:[5] just as number does not become individualized through the individuation of the thing numbered, nor pluralized through its plurality, so it stands with the relation between time and movement.[6] Time, therefore, is unique for all movement and for each thing moving, and exists everywhere, so that if we should suppose people confined from youth in a cave in the earth, still we should be sure that they would perceive time, even if they did not perceive any of the movements which are perceived in the world.[7] Aristotle therefore thought that the existence of movements in time is much like the existence of the things numbered in number,[8] for number is not pluralized through the plurality of the things numbered, nor is it localized through the individuation of the places numbered. He thought, therefore, that its specific quality was to mesaure the movements and to measure the existence of moving

things, in so far as they are moving, as number counts the individual moving things, and therefore Aristotle says in his definition of time
80 that it is the number of movement according to the relations of anterior and posterior.[1] Therefore, just as the supposition that a thing numbered occurs does not imply that number comes into existence, but it is a necessary condition for the occurrence of a thing numbered that number should exist before it, so the occurrence of movement implies that there was time before it. If time occurred
5 with the occurrence of any individual movement whatever, time would only be perceived with that individual movement.[2] This will make you understand how different the nature of time is from the nature of spatial magnitude.

Ghazali answers on behalf of the philosophers:

It may be said: This comparison[3] is lame, for there is neither above nor below in the world; for the world is spherical, and in the sphere there is neither above nor below; if the one direction is called above, because it
10 is overhead, and the other below, because it is under foot, this name is always determined* in relation to you, and the direction which is below in relation to you is above in relation to another, if you imagine him standing on the other side of the terrestrial globe with the sole of his foot opposite the sole of your foot. Yes, these parts of heaven which you reckon above during the day are identical with what is below during the night, and what is below the earth comes again above the earth through the daily revolution. But it cannot be imagined that the beginning of the world becomes its end. If we imagined a stick with one thick and one thin end and we agreed to call the part nearest the thin end 'above' and the other 'below', there would not arise from this an essential differentiation in the parts of the world; it would simply be that different names would have been applied to the shape of the stick, so that if we substituted the one name for the other, there would be an exchange of names, but the world itself would remain unchanged. So 'above' and 'below' are a mere
81 relation to you without any differentiation in the parts and places of the world. The non-existence, however, preceding the world and the initial term of its existence are essential realities, a substitution or a change of which cannot be imagined. Nor can it be imagined that the non-existence which is supposed to occur at the disappearance of the world and which follows the world can become the non-existence preceding it. The initial and final terms of the world's existence are permanent essential terms, in which no change can be imagined through the change of the subjective relation to them, in contrast with 'above' and 'below'. Therefore we
5 philosophers, indeed, are justified in saying that in the world there is neither 'above' nor 'below', but you theologians have not the right to assert that the existence of the world has neither a 'before' nor an 'after'.

And when the existence of 'before' and 'after' is proved, time cannot mean anything but what is apprehended through the anterior and the posterior.[1]

I say:

This answer given in the name of the philosophers is extremely unsound. It amounts to saying that 'above' and 'below' are relative to us and that therefore imagination can treat them as an infinite sequence, but that the sequence of 'before' and 'after' does not rest on imagination—for there is here no subjective relation—but is a purely rational concept. This means that the order of above and below in a thing may be reversed in imagination, but that the privation before an event and the privation after an event, its before and its after, are not interchangeable for imagination. But by giving this answer the problem is not solved,[2] for the philosophers think that 82 there exists a natural above[3] to which light things move and a natural below to which heavy things move, or else the heavy and the light would be relative and exist by convention, and they hold* that in imagination the limit of a body, having by nature its place above, may end either in occupied or in empty space.[4] And this argument is invalid as a justification of the philosophers for two reasons. First, that the philosophers assume an absolute above and an absolute below, but no absolute beginning and no absolute end; secondly that their opponents may object that it is not the fact of their being relative that causes the imagination to regard the sequence of low and high as an infinite series, but that this happens to the imagination because it observes that every spatial magnitude is continuous with another spatial magnitude, just as any event is preceded by another event. Therefore Ghazali transfers the question from the words 'above' and 'below' to 'inside' and 'outside'[5] and he says in his answer to the philosophers:

There is no real difference in the words 'above' and 'below', and therefore there is no sense in defining them, but we will apply ourselves rather to the words 'inside' and 'outside'. We say: The world has an inside and an outside; and we ask: Is there outside the world an occupied or empty space? The philosophers will answer: There is outside the world neither occupied nor empty space, and if you mean by 'outside' its extreme surface, then there is an outside, but if you mean anything else, there is no outside.[6] Therefore if they ask us theologians if there is anything before the existence of the world, we say: If you mean by it the beginning, i.e. its initial term, then there is a before, just as there is an outside to the world according to your explanation that that is its ultimate limit and its final plane, but if you mean anything else, then there is not, in analogy with your answer.

If you say: A beginning of existence, without anything preceding it, cannot be understood, we say: A limit of a body existing without anything outside it cannot be understood.[1] If you say: Its exterior is its furthest plane and nothing else, we say: Its before is the beginning of its existence, nothing else. The conclusion is that we say: We affirm that God has an existence without the world's existing, and this assumption again does not force us to accept anything else. That to assume more rests on the act of imagination is proved by the fact that imagination acts in the same way in regard to time as in regard to place, for although our opponents believe in the eternity of the world, their imagination is willing to suppose it created; whereas we, who believe in its creation, are often allowed by our imagination to regard it as eternal. So much as far as body is concerned; but to revert to time, our opponents do not regard a time without a beginning as possible, and yet in opposition to this belief their imagination can represent it as a possible assumption, although time cannot be represented by the imagination in the way that body is represented, for neither the champion nor the opponent of the finitude of body can imagine a body not surrounded by empty or occupied space; the imagination simply refuses to accept it. Therefore one should say: a clear thinker pays no attention to the imagination when he cannot deny the finitude of body by proof, nor does he give attention to the imagination when he cannot deny the beginning of an existence without anything preceding it, which the imagination cannot grasp. For the imagination, as it is only accustomed to a body limited by another body or by air, represents emptiness in this way, although emptiness, being imperceptible,[2] cannot be occupied by anything. Likewise the imagination, being only accustomed to an event occurring after another event, fears to suppose an event not preceded by another event which is terminated. And this is the reason of the error.[3]

83 I say:

Through this transference, by his comparing the time-limit with the spatial limit in his argument against the philosophers, this argument becomes invalid and we have already shown the error through which it is specious and the sophistical character of the argument, and we need not repeat ourselves.

5 Ghazali says:

The philosophers have a second way of forcing their opponents to admit the eternity of time. They say: You do not doubt that God was able to create the world one year, a hundred years, a thousand years, and so *ad infinitum*, before He created it and that those possibilities are different in magnitude and number. Therefore it is necessary to admit before the existence of the world a measurable extension, one part of which can be longer than another part, and therefore it is necessary that something should have existed before the existence of the world. If you say the word

'years' cannot be applied before the creation and revolution of heaven, let us drop the word 'years' and let us give another turn to our argument and say: If we suppose that from the beginning of the world till now the sphere of the world has performed, for instance, a thousand revolutions, was God able to create a second world before it, which, for example, would have performed eleven hundred revolutions up to now? If you deny it, it would mean that the Eternal had passed from impotence to power or the world from impossibility to possibility, but if you accept it, and you cannot but accept it, it may be asked if God was able to create a third world which would have performed twelve hundred revolutions up to now and you will have to admit this. We philosophers say: Then, could the world which we called by the order of our supposition the third, although as a matter of fact it is the first, have been created at the same time as the world we called the second, so that the former would have performed twelve hundred revolutions and the latter eleven hundred revolutions, it being understood that both, in revolving, complete the same distance at the same speed? If you were to admit this, you would be admitting something absurd, for it would be absurd that in that case the number of the two revolutions, having the same speed and finishing at the same moment, should be different. But, if you answer that it is impossible that the third world which has up to now performed twelve hundred revolutions could have been created at the same time as the second world which has up to now performed eleven hundred revolutions, and that on the contrary it must have been created the same number of years earlier than the second, as the second has been created before the first—we call it first, as it comes first in order, when in imagination we proceed from our time to it—then there exists a quantity of possibility double that of another possibility, and there is doubtless another possibility which doubles the whole of the others. These measurable quantitative possibilities, of which some are longer than others by a definite measure, have no other reality than time, and those measurable quantities are not an attribute of the essence of God, who is too exalted to possess measure,[1] nor an attribute of the non-existence of the world, for non-existence is nothing and therefore cannot be measured with different measures. Still, quantity is an attribute which demands a substratum, and this is nothing other than movement, and quantity is nothing but the time which measures movement. Therefore also for you theologians there existed before the world a 84
substratum of differentiated quantity, namely time, and according to you time existed before the world.[2]

I say:

The summary of this argument is that, when we imagine a movement, we find with it an extension which measures it, as if it were its 5
measurement, while reciprocally the movement measures the extension,[3] and we find that we can assume in this measure and this

extension a movement longer than the first supposed movement, and we affirm through the corresponding and congruous units of this
85 extension that the one movement is longer than the other.[1] If therefore for you theologians the world has a certain extension from its beginning till now—let us suppose, for instance, a thousand years—and since God according to you is able to create before this world another world, we may suppose that the extension He can give it will be longer than the extension of the first world by a certain definite
5 quantity, and that He can likewise create a third world before this second and that the existence of each of them must be preceded by an extension through which its existence can be measured.[2] If this is true, and there is an infinite regress of this possibility of anterior
10 worlds, there is an extension which precedes all these worlds. And this extension which measures all of them cannot be absolute non-existence, for non-existence cannot measure; it has, therefore, to be
86 a quantity, for what measures a quantity has to be quantity itself, and the measuring quantity is that which we call time. And it is clear that this must precede in existence anything we imagine to occur, just as the measure must precede the measured in existence. If this extension which is time were to occur at the occurrence of the first movement, then it would have to be preceded by an extension
5 which could measure it, in which it could occur, and which could be like its measurement. And in the same way any world which could be imagined would have to be preceded by an extension which measures it. Therefore this extension has no beginning, for if it had a beginning it would have to have an extension which measured it, for each event which begins has an extension which measures it and which we call time.

This is the most suitable exposition of this argument, and this is
10 the method by which Avicenna proves infinite time,[3] but there is a difficulty in understanding it, because of the problem that each possible has one extension and each extension is connected with its own possible and this forms a point of discussion;[4] or one must concede that the possibilities prior to the world are of the same nature as the possible inside the world, i.e. as it is of the nature of this possible inside the world that time inheres in it, so also with the possible which is prior to the world. This is clear concerning the possible inside the world, and therefore the existence of time may be imagined from it.[5]

87 Ghazali says:

The objection is that all this is the work of imagination, and the most convenient way of refuting it is to compare time with place; therefore we say: Was it not in God's power to create the highest sphere in its heaven a cubit higher than He has created it? If the answer is negative, this is to deny God's power, and if the answer is affirmative, we ask: And by two cubits and by three cubits and so on *ad infinitum*? Now we affirm that this amounts to admitting behind the world a spatial extension which has measure and quantity, as a thing which is bigger by two or three cubits than another occupies a space bigger by two or three cubits, and by reason of this there is behind the world a quantity which demands a substratum and this is a body or empty space. Therefore, there is behind the world empty or occupied space. And how can you answer this? And likewise we may ask, whether God was not able to create the sphere of the world smaller than He has created it by a cubit or two cubits? And is there no difference between those two magnitudes in regard to the occupied space taken away from them and the space they still occupy, for the occupied space withdrawn is bigger when two cubits are taken away than when one cubit is taken away? And therefore empty space has measure. But emptiness is nothing; how can it have measure? And our answer is: 'It belongs to the illusion of imagination to suppose possibilities in time before the existence of the world', just as your answer is: 'It belongs to the illusion of imagination to suppose possibilities in space behind the existence of the world.' There is no difference between those two points of view.[1]

I say:

This consequence is true against the theory which regards an infinite increase in the size of the world as possible, for it follows from this theory that a finite thing proceeds from God which is preceded by infinite quantitative possibilities. And if this is allowed for possibility in space, it must also be allowed in regard to the possibility in time, and we should have a time limited in both directions*, although it would be preceded by infinite temporal possibilities. The answer is, however, that to imagine the world to be bigger or smaller does not conform to truth but is impossible. But the impossibility of this does not imply that to imagine the possibility of a world before this world is to imagine an impossibility, except in case the nature of the possible were already realized and there existed before the existence of the world only two natures, the nature of the necessary and the nature of the impossible.[2] But it is evident that the judgement of reason concerning the being of these three natures is eternal, like its judgement concerning the necessary and the impossible.

This objection, however, does not touch the philosophers, because they hold that the world could not be smaller or bigger than it is,

If it were possible that a spatial magnitude could infinitely increase, then the existence of a spatial magnitude without end would be possible and a spatial magnitude, actually infinite, would exist, and this is impossible and Aristotle has already shown the impossibility of this.[1] But against the man who believes in this possibility, because the contrary would imply a denial of God's power, this argument is valid, for this spatial possibility is just as much a purely rational concept[2] as the possibility of temporal anteriority according to the philosophers. Therefore, he who believes in the temporal creation of the world and affirms that all body is in space, is bound to admit that before the creation of the world there was space, either occupied by body, in which the production of the world could occur, or empty, for it is necessary that space should precede what is produced.[3] The man who denies empty space and affirms the finiteness of body—like* certain later Ash'arites who, however, separated themselves from the principles of the theologians; but I have not read it in their books and it was told to me by some who studied their doctrines[4]—cannot admit the temporal production of the world. If the fact of this extension which measures movement and which stands in relation to it as its measurement were indeed the work of an illusion—like the representation of a world bigger or smaller than it really is—time would not exist, for time is nothing but what the mind perceives of this extension which measures movement. And if it is self-evident that time exists, then the act of the mind must necessarily be a veracious one, embodying reason, not one embodying illusion.

Ghazali says:

It has been objected:[5] we declare that what is not possible is what cannot be done and increase or decrease in the size of the world is impossible, and therefore could not be brought about.[6]

I say:

This is the answer to the objection of the Ash'arites that to admit that God could not have made the world bigger or smaller is to charge Him with impotence, but they have thereby compromised themselves, for impotence is not inability to do the impossible, but inability to do what can be done.[7]

Ghazali, opposing this, says:

This excuse is invalid for three reasons: The first is that it is an affront to reason, for when reason regards it as possible that the world might be bigger or smaller than it is by a cubit, this is not the same as regarding it as possible to identify black with white and existence with non-existence;

impossibility lies in affirming the negative and the positive at the same time, and all impossibilities amount to this. This is indeed a silly and faulty assertion.[1]

I say:

This statement is, as he says, an affront to reason, but only to the reason of him who judges superficially; it is not an affront to true reason, for a statement about its being possible or not[2] requires a proof. And therefore he is right when he declares that this is not impossible in the way in which the assumption that black might be white is impossible, for the impossibility of the latter is self-evident. The statement, however, that the world could not be smaller or larger than it is is not self-evident. And although all impossibilities can be reduced to self-evident impossibilities, this reduction can take place in two ways. The first is that the impossibility is self-evident; the 91
second is that there follows sooner or later from its supposition an impossibility of the same character as that of self-evident impossibilities.[3] For instance, if it is assumed that the world might be larger or smaller than it is, it follows that outside it there would be occupied or empty space. And from the supposition that there is outside it occupied or empty space, some of the greatest impossibilities follow: 5
from empty space the existence of mere extension existing by itself; from occupied space a body moving either upward or downward or in a circle which therefore must be part of another world. Now it has been proved in the science of physics that the existence of another world at the same time as this is an impossibility[4] and the most unlikely consequence would be that the world should have empty space: for any world must needs have four elements and a spherical body revolving round them. He who wants to ascertain this should look up 10
the places where its exposition is demanded—this, of course, after having fulfilled the preliminary conditions necessary for the student to understand strict proof.[5]

Then Ghazali mentions the second reason:

If the world is in the state it is, without the possibility of being larger or smaller than it is, then its existence, as it is, is necessary, not possible. But the necessary needs no cause. So say, then, as the materialists do that you deny the creator and that you deny the cause of causes! But this is not your doctrine.[6]

I say:

To this the answer which Avicenna gives in accordance with his 92

doctrine is quite appropriate.[1] According to him necessity of existence is of two kinds: the necessary, existent by itself, and the necessary, existent through another. But my answer on this question is still more to the point: things necessary in this sense need not have an agent or a maker; take, for example, a saw which is used to saw wood—it is a tool having a certain determined quantity, quality, and matter, that is, it is not possible for it to be of another material than iron and it could not have any other shape than that of a saw or any other measure than the measure of a saw. Still nobody would say that the saw has a necessity of being.[2] See, therefore, how crude this mistake is! If one were to take away the necessity from the quantities, qualities, and matters of things produced by art, in the way the Ash'arites imagine this to happen concerning the created in relation to the creator, the wisdom which lies in the creator and the created would have been withdrawn, any agent could be an artificer and any cause in existence a creator. But all this is a denial of reason and wisdom.[3]

Ghazali says:

The third reason is that this faulty argument authorizes its opponent[4] to oppose it by a similar one, and we may say: The existence of the world was not possible before its existence, for indeed possibility—according to your theory—is coextensive with existence, neither more nor less.[5] If you say: 'But then the eternal has passed from impotence to power', we answer:
93 'No, for the existence was not possible and therefore could not be brought about and the impossibility of a thing's happening that could not happen does not indicate impotence.' If you say: 'How can a thing which is impossible become possible?' We answer: 'But why should it be impossible that a thing should be impossible at one moment and possible at another?'[6] If you say: 'The times are similar,' the answer is: 'But so are the measures, and why should one measure be possible and another, bigger or smaller by the width of a nail, impossible?'[7] And if the latter assumption is not impossible, the former is not impossible either.' And this is the way to oppose them.

But the true answer is that their supposition of possibilities[8] makes no sense whatever. We concede only that God is eternal and powerful, and that His action never fails, even if He should wish it. And there is nothing in this power that demands the assumption of a temporal extension, unless imagination, confusing God's power with other things*, connects it with time*.[9]

I say:

The summary of this is that the Ash'arites say to the philosophers: this question whether the world could be larger or smaller is impos-

sible according to us; it has sense only for the man who believes in a priority of possibility in relation to the actualization of a thing, i.e. the realization of the possible. We, the Ash'arites, however, say: 'Possibility occurs together with the actuality as it is, without adding or subtracting anything.'

Now my answer is that he who denies the possibility of the possible before its existence denies the necessary, for the possible is the contrary of the impossible without there existing a middle term, and, if a thing is not possible before its existence, then it is necessarily impossible.[1] Now to posit the impossible as existing is an impossible falsehood, but to posit the possible as existing is a possible, not an impossible, falsehood.[2] Their assertion that possibility and actuality exist together is a falsehood, for possibility and actuality are contradictory, and do not exist together in one and the same moment. The necessary consequence for them is that possibility exists neither at the same time as the actuality nor before it.[3] The true consequence for the Ash'arites in this discussion is not that the eternal passes from impotence to power, for he who cannot do an impossible act is not called impotent, but that a thing can pass from the nature of the impossible to the nature of existence, and this is like the changing of the necessary into the possible. To posit a thing, however, as impossible at one time and possible at another does not cut it off from the nature of the possible, for this is the general character of the possible; the existence of anything possible, for instance, is impossible at the moment when its contrary exists in its substratum.[4] If the opponent concedes that a thing impossible at one time is possible at another, then he has conceded that this thing is of the nature of the absolutely possible[5] and that it has not the nature of the impossible. If it is assumed that the world was impossible for an infinite time before its production, the consequence is that, when it was produced, it changed over from impossibility to possibility.[6] This question is not the problem with which we are concerned here, but as we have said before, the transference from one problem to another is an act of sophistry.

94

95

And as to his words:

> But the true answer is that their supposition of possibilities makes no sense whatever. We concede only that God is eternal and powerful and that His action never fails, even if He should wish it. And there is nothing in this power that demands the assumption of a temporal extension, unless imagination confusing God's power with other things* connects with it time*.

I say:

Even if there were nothing in this supposition—as he says—that implies the eternity of time, there is something in it that demands that the possibility of the occurrence of the world and equally of time should be eternal. And this is that God never ceases to have power for action, and that it is impossible that anything should prevent His act from being eternally connected with His existence; and perhaps the opposite of this statement indicates the impossibility better still, namely, that He should have no power at one time but power at another, and that He could be called powerful only at definite limited times, although He is an eternal and perpetual being. And then we have the old question again whether the world may be either eternal or temporal, or whether the world cannot be eternal, 96 or whether the world cannot be temporal, or whether the world may be temporal but certainly cannot be eternal, and whether, if the world is temporal, it can be a first act or not. And if reason has no power to pronounce for one of these opposite propositions, let us go back to tradition, but do not then regard this question as a rational one! We say that the First Cause cannot omit the best act and perform an inferior, because this would be an imperfection; but can there be a greater imperfection than to assume the act of the Eternal as finite and limited, like the act of a temporal product, although a limited act can only be imagined of a limited agent, not of the eternal agent whose existence and action are unlimited? All this, as you see, cannot be unknown to the man who has even the slightest understanding of the rational. And how can it be thought that the present act proceeding from the Eternal cannot be preceded by another act, and again by another, and so in our thinking infinitely, like the infinite continuation of His existence? For it is a necessary consequence that the act of Him whose existence time cannot measure nor comprehend in either direction cannot be comprehended in time nor measured by a limited duration. For there is no being whose act is delayed after its existence, except when there is 97 an impediment which prevents its existence from attaining its perfection,[1] or, in voluntary beings, when there is an obstruction in the execution of their choice. He, therefore, who assumes that from the Eternal there proceeds only a temporal act presumes that His act is constrained in a certain way and in this way therefore does not depend on His choice.

THE THIRD PROOF FOR THE ETERNITY OF THE WORLD

Ghazali says:

They insist on saying: The existence of the world is possible before its existence, as it is absurd that it should be impossible and then become possible;[1] this possibility has no beginning, it is eternally unchangeable and the existence of the world remains eternally possible, for at no time whatever can the existence of the world be described as impossible; and if the possibility never ceases, the possible, in conformity with the possibility, never ceases either; and the meaning of the sentence, that the existence of the world is possible, is that the existence of the world is not impossible; and since its existence is eternally possible, it is never impossible, for if it were ever impossible, it would not be true that the existence of the world is eternally possible; and if it were not true that the existence of the world is eternally possible, it would not be true that its possibility never ceases; and if it were not true that its possibility never ceases, it would be true that its possibility had begun; and if it were true that its possibility had begun, its existence before this beginning would not be possible and that would lead to the assumption of a time when the world was not possible and God had no power over it.

I say:

He who concedes that the world before its existence was of a never-ceasing possibility must admit that the world is eternal, for the assumption that what is eternally possible[2] is eternally existent 98
implies no absurdity.[3] What can possibly exist eternally must necessarily exist eternally, for what can receive eternity cannot become corruptible, except if it were possible that the corruptible could become eternal.[4] Therefore Aristotle has said that the possibility in the eternal beings is necessary.[5]

Ghazali says:

The objection is that it is said that the temporal becoming of the world never ceased to be possible, and certainly there is no time at which its becoming could not be imagined. But although it could be at any time, it did not become at any time whatever, for reality does not conform to possibility, but differs from it.[6] You yourself hold, for instance, in the matter of place, that the world could be bigger than it is, or that the creation of an infinite series of bodies above the world is possible, and that there is no limit to the possibilities of increase in the size of the world, but still the actual existence of absolutely infinite occupied space and of any infinite and limitless being is impossible. What is said to be possible is an actual body of a limited surface, but the exact size of this body, whether it is larger or smaller, is not specified. In the same way, what is possible is

the coming into existence of the world in time, but the exact time of its coming into existence whether earlier or later, is not specified. The principle of its having come into being is specified and this is the possible, nothing else.[1]

I say:

The man who assumes that before the existence of the world there was one unique, never-ceasing possibility must concede that the world is eternal. The man who affirms, like Ghazali in his answer, that before the world there was an infinite number of possibilities of worlds, has certainly to admit that before this world there was
99 another world and before this second world a third, and so on *ad infinitum*, as is the case with human beings, and especially when it is assumed that the perishing of the earlier is the necessary condition for the existence of the later.[2] For instance, if God had the power to create another world before this, and before this second world yet another, the series must continue infinitely, or else we should arrive
5 at a world before which no other world could have been created (however, the theologians do not affirm this nor use it as a proof for the temporal production of the world).[3] Although the assumption that before this world there might be an infinite number of others does not seem an impossible one, it appears after closer examination to be absurd, for it would follow from it that the universe had the
10 nature of an individual person in this transitory world, so that its procession from the First Principle would be like the procession of the individual person from Him—that is to say, through an eternal moving body and an eternal motion. But then this world would be part of another world, like the transient beings in this world, and then necessarily either we end finally in a world individually eternal
100 or we have an infinite series. And if we have to bring this series to a standstill, it is more appropriate to arrest it at this world, by regarding it as eternally unique.

THE FOURTH PROOF

Ghazali says:

The fourth proof is that they say everything that becomes is preceded by the matter which is in it, for what becomes cannot be free from matter.[4]
5 For this reason matter never becomes; what becomes is only the form, the accidents and the qualities which add themselves to matter.[5] The proof is that the existence of each thing that becomes must, before its becoming, either be possible, impossible, or necessary: it cannot be impossible, for the essentially impossible will never exist; it cannot be necessary, for the

essentially necessary will never be in a state of non-existence, and therefore it is the essentially possible.[1] Therefore, the thing which becomes has before its becoming the possibility of becoming, but the possibility of becoming is an attribute which needs a relation and has no subsistence in itself.[2] It needs, therefore, a substratum with which it can be connected, and there is no substratum except matter, and it becomes connected with it in the way in which we say this matter receives warmth and coldness, or black and white, or movement and rest, i.e. it is possible that these qualities and these changes occur in it and therefore possibility is an attribute of matter. Matter does not possess other matter,[3] and cannot become; for, if it did, the possibility of its existence would precede its existence, and possibility would subsist by itself without being related to anything else, whereas it is a relative attribute which cannot be understood as subsisting by itself. And it cannot be said that the meaning of possibility amounts to what can be done and what the Eternal had the power to do, because we know only that a thing can be done, because it is possible, and we say 'this can be done because it is possible and cannot be done because it is not possible';[4] and if 'this is possible' meant 'this can be done', to say 'this can be done because it is possible' would mean 'this is possible because it is possible', and this is a circular definition; and this shows that 'this is possible' is a first judgement in the mind, evident in itself, which makes the second judgement 'that it can be done' intelligible. It cannot be said, either, that to be possible refers to the knowledge of the Eternal, for knowledge depends on a thing known, whereas possibility is undoubtedly an object of knowledge, not knowledge;[5] further, it is a relative attribute, and needs something to which it can be related, and this can only be matter, and everything that becomes is preceded by matter.

I say:

The summary of this is that everything that becomes is possible before it becomes, and that possibility needs something for its subsistence, namely, the substratum which receives that which is possible. For it must not be believed that the possibility of the recipient is the same as the possibility of the agent. It is a different thing to say about 101
Zaid, the agent, that he can do something and to say about the patient that it can have something done to it. Thus the possibility of the patient[6] is a necessary condition for the possibility of the agent, for the agent which cannot act is not possible but impossible. Since it is impossible that the possibility prior to the thing's becoming should be absolutely without* substratum, or that the agent should be its substratum or the thing possible—for the thing possible loses its possibility, when it becomes actual—there only remains as a vehicle for 5
possibility the recipient of the possible, i.e. matter. Matter, in so far as

it is matter, does not become; for if it did it would need other matter and we should have an infinite regress. Matter only becomes in so far as it is combined with form. Everything that comes into being comes into being from something else, and this must either give rise to an infinite regress and lead directly to infinite matter which is impossible,
102 even if we assume an eternal mover, for there is no actual infinite; or the forms must be interchangeable in the ingenerable and incorruptible substratum, eternally and in rotation.[1] There must, therefore, be an eternal movement which produces this interchange in the eternally transitory things. And therefore it is clear that the generation of the one in each pair of generated beings is the corruption of the other;
5 otherwise a thing could come into being from nothing, for the meaning of 'becoming' is the alteration of a thing and its change, from what it has potentially, into actuality. It is not possible that the privation itself should change into the existent, and it is not the privation of which it is said that it has become. There exists, therefore, a substratum for the contrary forms, and it is in this substratum
10 that the forms interchange.

Ghazali says:

The objection is that the possibility of which they speak is a judgement of the intellect, and anything whose existence the intellect supposes, provided no obstacle presents itself to the supposition, we call possible and, if there is such an obstacle, we call it impossible and, if we suppose that it cannot be supposed not to be, we call it necessary.[2] These are rational judgements which need no real existent which they might qualify. There are three proofs of this. The first is: If possibility needed an existent to which it could be related, and of which it could be said that it is its possibility, impossibility also would need an existent of which it might be said
103 that it is *its* impossibility; but impossibility has no real existence, and there is no matter in which it occurs and to which it could be related.

I say:

That possibility demands an existing matter is clear, for all true intellectual concepts need a thing outside the soul, for truth, as it
5 has been defined, is the agreement of what is in the soul with what is outside the soul.[3] And when we say that something is possible, we cannot but understand that it needs something in which this possibility can be.[4] As regards his proof that the possible is not dependent on an existent, because the impossible is not dependent on an existent, this is sophistical. Indeed the impossible demands a substratum
10 just as much as the possible does, and this is clear from the fact that the impossible is the opposite of the possible and opposite contraries

undoubtedly require a substratum. For impossibility is the negation of possibility, and, if possibility needs a substratum, impossibility which is the negation of this possibility requires a substratum too, e.g. we say that the existence of empty space is impossible, because the existence of independent dimensions outside or inside natural bodies is impossible, or that the presence of opposites at the same 104
time in the same substratum is impossible, or that the equivalence of one to two is impossible, i.e. in reality. All this is self-evident, and it is not necessary to consider the errors here committed.

Ghazali says:

The second proof is that the intellect decides that black and white are possible before they exist.[1] If this possibility were related to the body in which they inhere, so that it might be said that the meaning is that this body can be black and white, then white would not be possible by itself and possibility would be related only to the body. But we affirm, as concerns the judgement about black in itself, as to whether it is possible, necessary, or impossible, that we, without doubt, will say that it is possible. And this shows that the intellect in order to decide whether something is possible need not admit an existing thing to which the possibility can be related.

I say:

This is a sophism. For the possible is predicated of the recipient and 10
of the inherent quality. In so far as it is predicated of the substratum, its opposite is the impossible, and in so far as it is predicated of the inherent, its opposite is the necessary.[2] Thus the possible which is described as being the opposite of the impossible is not that which abandons its possibility so far as it is actualized, when it becomes actual, because this latter loses its possibility in the actualizing process.[3] This latter possible is only described by possibility in so far as it is in potency, and the vehicle of this potency is the substratum which changes from existence in potency into existence in actuality.[4] 105
This is evident from the definition of the possible that it is the non-existence which is in readiness to exist or not to exist.[5] This possible non-existent is possible neither in so far as it is non-existent nor in so far as it is actually existent.[6] It is only possible in so far as it is in potency, and for this reason the Mu'tazilites affirm that the non- 5
existent is a kind of entity.[7] For non-existence is the opposite of existence, and each of the two is succeeded by the other, and when the non-existence of a thing disappears it is followed by its existence, and when its existence disappears it is succeeded by its non-existence. As non-existence by itself cannot change into existence, and existence 10

by itself cannot change into non-existence, there must be a third entity which is the recipient for both of them, and that is what is described by 'possibility' and 'becoming' and 'change from the quality of non-existence to the quality of existence'. For non-existence itself is not described by 'becoming' or 'change'; nor is the thing that has become actual described in this way, for what becomes loses the quality of becoming, change, and possibility when it has become actual. Therefore there must necessarily be something that can be described by 'becoming' and 'change' and 'transition from non-existence to existence', as happens in the passage of opposites into opposites; that is to say, there must be a substratum for them in
106 which they can interchange—with this one difference, however, that this substratum exists in the interchange of all the accidents in actuality, whereas in the substance it exists in potency.[1]

And we cannot think of regarding what is described by 'possibility' and 'change' as identical with the actual, i.e. which belongs to the becoming in so far as it is actual, for the former again vanishes and
5 the latter must necessarily be a part of the product.[2] Therefore there must necessarily be a substratum which is the recipient for the possibility and which is the vehicle of the change and the becoming, and it is this of which it is said that it becomes, and alters, and changes from non-existence into existence. Nor can we think of making this substratum of the nature of the actualized, for if this were the case the existent would not become, for what becomes
10 comes into being from the non-existent not from the existent.[3] Both philosophers and Mu'tazilites agree about the existence of this entity; only the philosophers are of the opinion that it cannot be exempt from a form actually existent, i.e. that it cannot be free from existence, like the transition, for example, from sperma to blood and the transition from blood to the members of the embryo.[4] The reason is that if it were exempt from existence it would have an existence of its own, and if it had an existence of its own, becoming could not
107 come from it.[5] This entity is called by the philosophers '*hyle*', and it is the cause of generation and corruption. And according to the philosophers an existent which is free from *hyle* is neither generable nor corruptible.[6]

Ghazali says:

The third proof is that the souls of men, according to the philosophers, are substances which subsist by themselves[7] without being in a body or in matter or impressed on matter;[8] they had a beginning in time, according

to the theory of Avicenna and the acknowledged philosophers, they had possibility before their beginning, but they have neither essence nor matter[1] and their possibility is a relative attribute,[2] dependent neither on God's power nor on the Agent;[3] but on what then is it dependent? The difficulties are therefore turned against them themselves.

I say:

I do not know any philosopher who said that the soul has a beginning in the true sense of the word and is thereafter everlasting except —as Ghazali relates—Avicenna.[4] All other philosophers agree that in their temporal existence they are related to and connected with the bodily possibilities, which receive this connexion like the possibilities which subsist in mirrors for their connexion with the rays of the sun.[5] According to the philosophers this possibility is not of the nature of the generable and corruptible forms, but of a kind to which, according to them, demonstrative proof leads, and the vehicle of this possibility is of another nature than the nature of the *hyle*. He alone can grasp their theories in these matters who has read their books and fulfilled the conditions there laid down by them, and has besides a sound understanding and a learned master.[6] That Ghazali should 108
touch on such questions in this way is not worthy of such a man, but there are only these alternatives: either he knew these matters in their true nature, and sets them out here wrongly, which is wicked; or he did not understand their real nature and touched on problems he had not grasped, which is the act of an ignoramus. However, he stands too high in our eyes for either of these qualifications. But even the best horse will stumble[7] and it was a stumble of Ghazali's that he brought out this book. But perhaps he was forced to do so by the conditions of his time and his situation.

Ghazali says, speaking on behalf of the philosophers:

It may be said: To reduce possibility to a judgement of the intellect is absurd, for the meaning of 'judgement of the intellect' is nothing but the knowledge of possibility, and possibility is an object of knowledge, not knowledge itself; knowledge, on the contrary, comprises possibility and follows it and depends on it as it is, and if knowledge vanished the object of knowledge would not, but the disappearance of the object of knowledge would imply the disappearance of knowledge. For knowledge and the object-known are two things, the former dependent on the latter, and if we supposed rational beings to turn away from possibility and neglect it, we should say: 'It is not possibility that is annulled, for the possibilities subsist by themselves, but it is simply that minds neglect them or that minds and rational beings have disappeared; but possibility remains,

109 without any doubt.[1] And the three proofs are not valid, for impossibility requires an existent to which it can be related, and impossibility means identifying two opposites, and if the substratum were white it could not become black as long as the white existed, and therefore we need a substratum, qualified by the quality during the inherence of which its opposite is spoken of as impossible in this substratum, and therefore impossibility is a relative attribute subsistent in a substratum and related to it. And where the necessary is concerned it is evident that it is related to necessary existence.

As concerns the second proof, that black is in itself possible, this is a mistake, for if it is taken, abstracted from the substratum in which it inheres, it is impossible, not possible; it only becomes possible when it can become a form in a body; the body is then in readiness for the interchange, and the interchange is possible for the body; but in itself black has no individuality, so as to be characterizable by possibility.

As concerns the third proof about the soul, it is eternal for one school of philosophers, and is only possible in the attaching of itself to bodies, and therefore against those philosophers the argument does not apply.[2] But for those who admit that the soul comes into existence—and one school of philosophers has believed that it is impressed on matter and follows its temperament, as is indicated by Galen in certain passages—it comes into existence in matter and its possibility is related to its matter.[3] And according to the theory of those who admit that it comes into existence, although it is not impressed on matter—which means that it is possible for the rational soul to direct matter—the possibility prior to the becoming is relative to matter,[4] and although the soul is not impressed on matter, it is attached to it, for it is its directing principle and uses it as an instrument, and in this way its possibility is relative to matter.[5]

I say:

What he says in this section is true, as will be clear to you from our explanation of the nature of the possible.

Then Ghazali, objecting to the philosophers, says:

And the answer is: To reduce possibility, necessity, and impossibility to rational concepts is correct, and as for the assertion that the concepts of reason form its knowledge, and knowledge implies a thing known, let them be answered: it cannot be said that receptivity of colour and animality and the other concepts, which are fixed in the mind according to the philosophers—and this is what constitutes the sciences—have no objects;[6] still these objects have no real existence in the external world, and the philosophers are certainly right in saying that universals exist only in the mind, not in the external world, and that in the external world there are only particular individuals, which are apprehended by the senses, not by reason; and yet these individuals are the reason why the mind abstracts from them a concept separated from its rational matter; therefore

receptivity of colour is a concept, separate in the mind from blackness and whiteness, although in reality a colour which is neither black nor white nor of another colour cannot be imagined,[1] and receptivity of colour is fixed in the mind without any specification—now, in the same way, it can be said that possibility is a form which exists in minds, not in the exterior world, and if this is not impossible for other concepts,[2] there is no impossibility in what we have said.[3]

I say:

This argument is sophistical because possibility is a universal which has individuals outside the mind like all the other universals, and knowledge is not knowledge of the universal concept, but it is a knowledge of individuals in a universal way which the mind attains in the case of the individuals, when it abstracts from them one common nature which is distributed among the different matters.[4] The nature, therefore, of the universal is not identical with the nature of the things of which it is a universal. Ghazali is here in error, for he assumes that the nature of possibility is the nature of the universal, without there being individuals on which this universal, i.e. the universal concept of possibility, depends. The universal, however, is not the object of knowledge; on the contrary through it the things become known, although it exists potentially in the nature of the things known;[5] otherwise its apprehension of the individuals, in so far as they are universals, would be false. This apprehension would indeed be false if the nature of the object known were essentially individual, not accidentally individual, whereas the opposite is the case: it is accidentally individual, essentially universal.[6] Therefore if the mind did not apprehend the individuals in so far as they are universal, it would be in error and make false judgements about them. But if it abstracts those natures which subsist in the individual things from their matter, and makes them universal, then it is possible that it judges them rightly; otherwise it would confuse those natures, of which the possible is one.

The theory of the philosophers that universals exist only in the mind, not in the external world, only means that the universals exist actually only in the mind, and not in the external world, not that they do not exist at all in the external world, for the meaning is that they exist potentially, not actually in the external world; indeed, if they did not exist at all in the outside world they would be false. Since universals exist outside the mind in potency and possibilities exist outside the soul in potency, the nature of universals in regard

to this resembles that of possibilities. And for this reason Ghazali tried to deceive people by a sophism*, for he compared possibility to the universals because of their both being potentially in reality, and then he assumed that the philosophers assert that universals do not exist at all outside the soul; from which he deduced that possibility does not exist outside the soul. What an ugly and crude sophism!

112 Ghazali says:

As regards their assertion that, if it were assumed that rational beings had vanished or had neglected possibility, possibility itself would not have disappeared, we answer: 'If it were assumed that they had vanished, would not the universal concepts, i.e. the genera and species, have disappeared too?' and if they agree to this, this can only mean that universals are only concepts in the mind; but this is exactly what we say about possibility, and there is no difference between the two cases; if they, however, affirm that they are permanent in the knowledge of God,[1] the same may be said about possibility, and the argument is valid, and our aim of showing the contradiction in this theory has been attained.

I say:

This argument shows his foolishness and proneness to contradiction. The most plausible form in which it might be expressed would be to base it* on two premisses: the first, that the evident proposition that possibility is partially individual, namely, outside the soul, partially universal, namely, the universal concept of the individual possibles, is not true; and the second, that it was said that the nature of the individual possibles outside the soul is identical with the nature of the universal of possibility in the mind; and in this case the possible would have neither a universal nor an individual nature, or else the nature of the individual would have to be identical with that of the universal. All this is presumptuous, and how should it be else, for in a way the universal has an existence outside the soul.

Ghazali says:

And as regards their subterfuge where the impossible is concerned, that it is related to the matter qualified by its opposite, as it cannot take the place of its opposite,[2] this cannot be the case with every impossible, for that God should have a rival is impossible, but there is no matter to which
113 this impossibility could be related. If they say the impossibility of God's having a rival, means that the solitude of God in His essence and His uniqueness are necessary and that this solitude is proper to Him, we answer: This is not necessary, for the world exists with Him, and He is therefore not solitary. And if they say that His solitude so far as a rival is

concerned is necessary, and that the opposite of the necessary is the impossible, and that the impossible is related to Him, we answer: In this case the solitude of God in regard to the world is different from His solitude in regard to His equal and in this case His solitude in regard to His rival is necessary, and in regard to the created world not necessary.[1]

I say:

All this is vain talk, for it cannot be doubted that the judgements of the mind have value only in regard to the nature of things outside the soul. If there were outside the soul nothing possible or impossible, the judgement of the mind that things are possible or impossible would be of as much value as no judgement at all, and there would be no difference between reason and illusion. And that there should be a rival to God is just as impossible in reality as God's existence is necessary in reality. But there is no sense in wasting more words on this question.

Ghazali says:

The subterfuge concerning the becoming of the souls is worthless too, for they have individual essences and a possibility prior to their becoming,[2] and at that time there is nothing with which they could be brought into relation.[3] Their argument contends that it is possible for matter that the souls direct it is a remote relation[4] and, if this satisfies you, you might as well say that the possibility of the souls' becoming* lies in the power of Him who can on His own authority produce them,[5] for the souls are then 114
related to the Agent—although they are not impressed on Him—in the same way as to the body, on which they are not impressed either. And since the imprint is made neither on the one substrate nor on the other*, there is no difference between the relation to the agent and that to the patient.

I say:

He wants to force those who assume* the possibility of the soul's becoming without there being an imprint in matter to concede that the possibility in the recipient is like the possibility in the agent, because the act proceeds from the agent and therefore these two possibilities are similar. But this is a shocking supposition, for, according to it, the soul would come to the body as if it directed it from the outside, as the artisan directs his product, and the soul would not be a form in the body, just as the artisan is not a form in his product. The answer is that it is not impossible that there should be amongst the entelechies which conduct themselves like forms[6] something that is separate from its substratum as the steersman is from his ship[7] and the artisan from his tool, and if the body is like the instrument of the

soul, the soul is a separate form, and then the possibility which is in the instrument is not like the possibility which is in the agent; no, the instrument is in both conditions, the possibility which is in the patient and the possibility which is in the agent, and therefore the instruments are the mover and the moved, and in so far as they are the mover, there is in them the possibility which is in the agent, and in so far as they are moved, the possibility which is in the recipient.[1]
115 But the supposition that the soul is a separate entity does not force them into the admission that the possibility which is in the recipient is identical[2] with the possibility which is in the agent. Besides, the possibility which according to the philosophers is in the agent is not only a rational judgement, but refers to something outside the soul.[3]
5 Therefore his argument does not gain by assimilating one of these two possibilities to the other. And since Ghazali knew that all these arguments have no other effect than to bring doubts and perplexity to those who cannot solve them—which is an act of wicked sophists, he says:

And if it is said you have taken good care in all your objections to oppose
10 the difficulties by other difficulties, but nothing of what you yourself have adduced is free from difficulty, we answer: the objections do show the falsity of an argument, no doubt, and certain aspects* of the problem are solved in stating the opposite view and its foundation.[4] We have not committed ourselves to anything more than to upsetting their theories, and to showing the faults in the consequence of their proofs so as to demonstrate their incoherence. We do not seek to attack from any definite point of view, and we shall not transgress the aim of this book, nor give full proofs for the temporal production of the world, for our intention is
116 merely to refute their alleged knowledge of its eternity. But after finishing this book we shall, if it pleases God, devote a work to establishing the doctrine of truth, and we call it 'The Golden Mean in Dogmatic Beliefs'*,[5] in which we shall be engaged in building up, as in this book we have been in destroying.

I say:

To oppose difficulty with difficulty does not bring about destruc-
5 tion, but only perplexity and doubts in him who acts in this way, for why should he think one of the two conflicting theories reasonable and the opposite one vain? Most of the arguments with which this man Ghazali opposes the philosophers are doubts which arise when certain parts of the doctrine of the philosophers come into conflict with others, and when those differences are compared with each other; but this is an imperfect refutation. A perfect refutation would be one that succeeded in showing the futility of their system according to

the facts themselves, not such a one as, for instance, his assumption. 10
that it is permissible for the opponents of the philosophers to claim
that possibility is a mental concept in the same way as the philoso-
phers claim this for the universal. For if the truth of this comparison
between the two were conceded, it would not follow that it was
untrue that possibility was a concept dependent on reality, but only
either that the universal existed in the mind only was not true, or
that possibility existed in the mind only was not true. Indeed, it
would have been necessary for him to begin by establishing the truth, 117
before starting to perplex and confuse his readers, for they might die
before they could get hold of that book, or he might have died him-
self before writing it. But this book has not yet come into my hands[1]
and perhaps he never composed it, and he only says that he does not
base this present book on any doctrine, in order that it should not be
thought that he based it on that of the Ash'arites. It appears from 5
the books ascribed to him that in metaphysics he recurs to the
philosophers. And of all his books this is most clearly shown and
most truly proved in his book called *The Niche for Lights*.[2]

THE SECOND DISCUSSION 118

The Refutation of their Theory of the Incorruptibility of the World and of Time and Motion

Ghazali says:

Know that this is part of the first question, for according to the philo-
sophers the existence of the world, having no beginning, does not end 5
either; it is eternal, without a final term. Its disappearance and its
corruption cannot be imagined; it never began to exist in the condition
in which it exists[3] and it will never cease to exist in the condition in which
it exists.

Their four arguments which we have mentioned in our discussion of
its eternity in the past refer also to its eternity in the future, and the
objection is the same without any difference. They say that the world is
caused, and that its cause is without beginning or end, and that this
applies both to the effect and to the cause, and that, if the cause does not
change, the effect cannot change either; upon this they build their proof
of the impossibility of its beginning, and the same applies to its ending.
This is their first proof. 10

The second proof is that an eventual annihilation of the world must occur *after* its existence, but 'after' implies an affirmation of time.

119 The third proof is that the possibility of its existence does not end, and that therefore its possible existence may conform to the possibility.[1] But this argument has no force, for we regard it as impossible that the world should not have begun, but we do not regard it as impossible that it should last eternally, if God should make it last eternally, for it is not necessary that what begins has also an end, although it is necessary for an act to have a beginning and an initial term. Only Abu Hudhail al-Allaf thought that the world must needs have an end, and he said that, as in the past infinite circular movements are impossible, so they are in the future;[2] but this is wrong, for the whole of the future never enters into existence either simultaneously or successively, whereas the whole of the past is there simultaneously but not successively.[3] And since it is clear that we do not regard the incorruptibility of the world as impossible from a rational point of view—we regard indeed its incorruptibility and corruptibility as equally possible—we know only through the Divine Law[4] which of the two possibilities will be realized. Therefore let us not try to solve this problem by mere reason!

I say:

His assertion that the argument of the philosophers for the eternity of the world in the past applies also to its eternity in the future is true, and equally the second argument applies to both cases. But his assertion that the third argument is not equally valid for the future and for the past, that indeed we regard the becoming of the world in the past as impossible, but that with the exception of Abu Hudhail al-Allaf, who thought that the eternity of the world was impossible in either direction, we do not regard its eternity in the future as absolutely impossible, is not true. For when it was conceded to the philosophers that the possibility of the world had no beginning and that with this possibility a condition of extension, which could measure this possibility, was connected in the same way as this condition of extension is connected with the possible existent, when it is actualized, and it was also evident that this extension had no

120 initial term, the philosophers were convinced that time had no initial term, for this extension is nothing but time, and to call it timeless eternity[5] is senseless. And since time is connected with possibility and possibility with existence in motion, existence in motion has no first term either. And the assertion of the theologians that everything which existed in the past had a first term is futile, for the First exists in the past eternally, as it exists eternally in the future.[6] And their distinction here between the first term and its act[7] requires a proof,

for the existence of the temporal which occurs in the past is different from the existence of the eternal which occurs in the past. For the temporal which has occurred in the past is finite in both directions, i.e. it has a beginning and an end, but the eternal which has occurred in the past has neither beginning nor end.[1] And therefore, since the philosophers have not admitted that the circular movement has a beginning, they cannot be forced to admit that it has an end, for they do not regard its existence in the past as transitory, and, if some philosopher does regard it as such, he contradicts himself and therefore the statement is true that everything that has a beginning has an end.[2] That anything could have a beginning and no end is not true, unless the possible could be changed into the eternal, for everything that has a beginning is possible. And that anything could be liable to corruption and at the same time could be capable of eternity 121
is something incomprehensible[3] and stands in need of examination. The ancient philosophers indeed examined this problem, and Abu Hudhail agrees with the philosophers in saying that whatever can be generated is corruptible, and he kept strictly to the consequence which follows from the acceptance of the principle of becoming. As to those who make a distinction between the past and the future, because what is in the past is there in its totality, whereas the future never enters into existence in its totality (for the future enters reality only successively), this is deceptive, for what is in reality past is that which has entered time and that which has entered time has time beyond it in both directions and possesses totality. But that which has never entered the past in the way the temporal enters the past can only be said in an equivocal way to be in the past; it is infinitely extended, with the past rather than in the past,[4] and possesses no totality in itself, although its parts are totalities. And this, if it has no initial term beginning in the past, is in fact time itself. For each temporal beginning is a present, and each present is preceded by a past, and both that which exists commensurable with time, and time commensurable with it, must necessarily be infinite. Only the parts of time which are limited by time in both directions can enter the past, in the same way as only the instant which is everchanging and only 122
the instantaneous motion of a thing in movement in the spatial magnitude in which it moves can really enter the existence of the moved.[5] And just as we do not say that the past of what never ceased to exist in the past ever entered existence at an instant—for this would mean that its existence had a beginning and that time limited it in both

directions—so it stands with that which is simultaneous with time, not in time. For of the circular movements only those that time limits enter into represented existence,[1] but those that are simultaneous with time do not afterwards enter past existence, just as the eternally existent does not enter past existence, since no time limits it. And when one imagines an eternal entity whose acts are not delayed after its existence—as indeed must be the case with any entity whose existence is perfect[2]—then, if it is eternal and does not enter past time, it follows necessarily that its acts also cannot enter past time, for if they did they would be finite and this eternal existent would be eternally inactive and what is eternally inactive is necessarily impossible. And it is most appropriate for an entity, whose existence does
123 not enter time and which is not limited by time, that its acts should not enter existence either, because there is no difference between the entity and its acts. If the movements of the celestial bodies and what follows from them are acts of an eternal entity, the existence of which does not enter the past, then its acts do not enter past time either. For it is not permissible to say of anything that is eternal that it has entered past time, nor that it has ended, for that which has an end has a beginning. For indeed, our statement that it is eternal means the denial of its entering past time and of its having had a beginning. He who, assuming that it entered past time, assumes that it must have a beginning begs the question.[3] It is, therefore, untrue that what is coexistent with eternal existence, has entered existence, unless the eternal existence has entered existence by entering past time. Therefore our statement 'everything past must have entered existence' must be understood in two ways: first, that which has entered past existence must have entered existence, and this is a true statement; secondly, that which is past and is inseparably connected with eternal existence cannot be truly said to have entered existence, for our expression 'entered existence' is incompatible with our expression 'connected with eternal existence'. And there is here
124 no difference between act and existence. For he who concedes the existence of an entity which has an eternal past must concede that there exist acts, too, which have no beginning in the past. And it by no means follows from the existence of His acts that they must have entered existence, just as it by no means follows from the past permanency of His essence that He has ever entered existence. And all this is perfectly clear, as you see.

Through this First Existent acts can exist which never began and

will never cease, and if this were impossible for the act, it would be impossible, too, for existence, for every act is connected with its existent in existence. The theologians, however, regarded it as impossible that God's act should be eternal, although they regarded His existence as eternal, and that is the gravest error. To apply the expression 'production' for the world's creation as the Divine Law does is more appropriate than to use it of temporal production, as the Ash'arites did,[1] for the act, in so far as it is an act, is a product, and eternity is only represented in this act because this production and the act produced have neither beginning nor end. And I say that it was therefore difficult for Muslims to call God eternal and the world eternal, because they understood by 'eternal' that which has no cause.[2] Still I have seen some of the theologians tending rather to our opinion.[3]

Ghazali says:

Their fourth proof is similar to the third, for they say that if the world were annihilated the possibility of its existence would remain, as the possible cannot become impossible. This possibility is a relative attribute and according to them everything that becomes needs matter which precedes it and everything that vanishes needs matter from which it can vanish, but the matter and the elements do not vanish, only the forms and accidents vanish which were in them.

I say:

If it is assumed that the forms succeed each other in one substratum in a circular way and that the agent of this succession is an eternal one, nothing impossible follows from this assumption. But if this succession is assumed to take place in an infinite number of matters or through an infinite number of specifically different forms, it is impossible, and equally the assumption is impossible that such a succession could occur without an eternal agent or through a temporal agent. For if there were an infinite number of matters, an actual infinite would exist, and this is impossible. It is still more absurd to suppose that this succession could occur through temporal agents, and therefore from this point of view it is only true that a man must become from another man, on condition that the successive series happens in one and the same matter and the perishing of the earlier men can become the matter of the later. Besides, the existence of the earlier men is also in some respect the efficient cause and the instrument for the later—all this, however, in an accidental way, for those men are nothing but the instrument for the Agent, who does not

cease to produce a man by means of a man and through the matter of a man. The student who does not distinguish all these points will not be able to free himself from insoluble doubts. Perhaps God will place you and us among those who have reached the utmost truth
126 concerning what may and must be taught about God's infinite acts. What I have said about all these things is not proved here, but must be examined by the application of the conditions which the ancients have explained and the rules which they have established for scientific research. Besides, he who would like to be one of those who
5 possess the truth should in any question he examines consult those who hold divergent opinions.[1]

Ghazali says:

The answer to all this has been given above. I only single out this question because they have two proofs for it.

The first proof is that given by Galen, who says: If the sun, for instance,
10 were liable to annihilation, decay would appear in it over a long period. But observation for thousands of years shows no change in its size, and the fact that it has shown no loss of power through such a long time shows that it does not suffer corruption.[2] There are two objections to this: The first is that the mode of this proof—that if the sun suffers corruption, it must suffer loss of power, and as the consequence is impossible, the antecedent must be impossible too—is what the philosophers call a conjunctive hypothetical proposition,[3] and this inference is not conclusive, because its antecedent is not true, unless it is connected with another condition. In other words the falsehood of the consequence of the proposition 'if the sun suffers corruption, it must become weaker' does not imply the falsehood of the antecedent, unless either (1) the antecedent is bound up with the
127 additional condition that, if it suffers corruption through decay, it must do so during a long period, or (2) it is seriously proved that there is no corruption except through decay. For only then does the falsehood of the consequence imply the falsehood of the antecedent. Now, we do not concede that a thing can only become corrupt through decay; decay is only one form of corruption, for it is not impossible that what is in a state of perfection should suddenly suffer corruption.

5 I say:

He says in his objection here to this argument that there is no necessary relation between antecedent and consequent, because that which suffers corruption need not become weaker, since it can suffer corruption before it has become weaker. The conclusion, however, is quite sound, when it is assumed that the corruption takes place in a natural way, not by violence, and it is assumed besides that the celestial body is an animal, for all animals suffer

corruption only in a natural way—they necessarily decay before their corruption. However, our opponents do not accept these premisses, so far as they concern heaven, without proof. And therefore Galen's statement is only of dialectical value. The safest way to use this argument is to say that, if heaven should suffer corruption, it would either disintegrate into the elements of which it is composed or, losing the form it possesses, receive another, as happens with the four elements when they change into one another. If, however, heaven passed away into the elements, those elements would have to be part of another world, for it could not have come into being from the elements contained in this world, since these elements are infinitely small, compared with its size, something like a point in relation to a circle.[1] Should heaven, however, lose its form and receive another there would exist a sixth element opposed to all the others, being neither heaven, nor earth, nor water, nor air, nor fire.[2] And all this is impossible. And his statement that heaven does not decay is only a common opinion, lacking the force of the immediately evident axioms; and it is explained in the *Posterior Analytics* of what kind these premisses are.[3]

Ghazali says:

The second objection is that, if it were conceded to Galen that there is no corruption except through decay, how can it be known that decay does not affect the sun? His reliance on observation is impossible, for observations determine the size only by approximation, and if the sun, whose size is said to be approximately a hundred and seventy times that of the earth,[4] decreased, for instance, by the size of mountains the difference would not be perceptible to the senses. Indeed, it is perhaps already in decay, and has decreased up to the present by the size of mountains or more; but perception cannot ascertain this, for its knowledge in the science of optics works only by supposition and approximation. The same takes place with sapphire and gold, which, according to them, are composed out of elements and which are liable to corruption. Still, if you left a sapphire for a hundred years, its decrease would be imperceptible, and perhaps the decrease in the sun during the period in which it has been observed stands in proportion to its size as the decrease of the sapphire to its size in a hundred years. This is imperceptible, and this fact shows that his proof is utterly futile.

We have abstained from bringing many proofs of the same kind as the wise disdain. We have given only this one to serve as an example of what we have omitted, and we have restricted ourselves to the four proofs which demand that their solution should be attempted in the way indicated above.

I say:

If the sun had decayed and the parts of it which had disintegrated during the period of its observation were imperceptible because of the size of its body, still the effect of its decay on bodies in the sublunary world would be perceptible in a definite degree, for everything that decays does so only through the corruption and disintegration of its parts, and those parts which disconnect themselves from the decaying mass must necessarily remain in the world in their totality or change* into other parts, and in either case an appreciable change must occur in the world, either in the number or in the character of its parts. And if the size of the bodies could change, their actions and affections would change too, and if their actions and affections, and especially those of the heavenly bodies, could change, changes would arise in the sublunary world. To imagine, therefore, a dissipation of the heavenly bodies is to admit a disarrangement in the divine order which, according to the philosopher, prevails in this world. This proof is not absolutely strict.

130 Ghazali says:

The philosophers have a second proof of the impossibility of the annihilation of the world. They say: The substance of the world could not be annihilated, because no cause could be imagined for this and the passage from existence to non-existence cannot take place without a cause. This cause must be either the Will of the Eternal, and this is impossible, for if He willed the annihilation of the world after not having willed it, He would have changed; or it must be assumed that God and His Will are in all conditions absolutely the same, although the object of His Will changes from non-existence to existence and then again from existence to non-existence. And the impossibility of which we have spoken in the matter of a temporal existence through an eternal will, holds also for the problem of annihilation. But we shall add* here a still greater difficulty, namely, that the object willed is without doubt an act of the willer, for the act of him who acts after not having acted—even if he does not alter in his own nature—must necessarily exist after having not existed: if he remained absolutely in the state he was in before, his act would not be there. But when the world is annihilated, there is no object for God's act, and if He does not perform anything (for annihilation is nothing), how could there be an action? Suppose the annihilation of the world needed a new act in God which did not exist before, what could such an act be? Could it be the existence of the world? But this is impossible, since what happens is on the contrary the termination of its existence. Could this act then be the annihilation of the world? But annihilation is nothing at all, and it could therefore not be an act. For even in its slightest intensity an act

must be existent, but the annihilation of the world is nothing existent at all; how could it then be said that he who caused it was an agent, or he who effected it its cause?[1]

The philosophers say that to escape this difficulty the theologians are divided into four sects and that each sect falls into an absurdity.

I say: 131

He says here that the philosophers compel the theologians who admit the annihilation of the world to draw the consequence that from the Eternal, who produced the world, there proceeds a new act, i.e. the act of annihilation, just as they compelled them to draw this consequence in regard to His temporal production. About this problem everything has been said already in our discussion of temporal production, for the same difficulties as befall the problem of production apply to annihilation, and there is no sense in repeating ourselves. But the special difficulty he mentions here is that from the assumption of the world's temporal production it follows that the act of the agent attaches itself to non-existence,[2] so that in fact the agent performs a non-existing act and this seemed to all the parties too shocking to be accepted,[3] and therefore they took refuge in theories he mentions later. But this consequence follows necessarily from any theory which affirms that the act of the agent is connected with absolute creation—that is, the production of something that did not exist before in potency and was not a possibility which its agent converted from potency into actuality, a theory which affirms in fact that the agent created it out of nothing. But for the philosophers the act of the agent is nothing but the actualizing of what is in potency, and this act is, according to them, attached to an existent in two ways, either* in production, by converting the thing from its potential existence into actuality so that its non-existence is terminated, or* in destruction, by converting the thing from its actual existence into potential existence, so that it passes into a relative 132 non-existence. But he who does not conceive the act of the agent in this way has to draw the consequence that the agent's act is attached to non-existence in both ways, in production as in destruction; only as this seems clearer in the case of destruction, the theologians could not defend themselves against their opponents. For it is clear that for the man who holds the theory of absolute annihilation the agent must perform something non-existent, for when the agent converts the thing from existence into absolute non-existence, he directs his first intention to something non-existent, by contrast with what

happens when he converts it from actual existence into potential existence; for in this conversion the passage into non-existence is only a secondary fact. The same consequence applies to production, only here it is not so obvious, for the existence of the thing implies the annulment of its non-existence, and therefore production is nothing but the changing of the non-existence of a thing into its existence; but since this movement is directed towards production, the theologians could say that the act of the agent is attached solely to production. They could not, however, say this in regard to destruction, since this movement is directed towards non-existence. They have, therefore, no right to say that in production the act of the agent attaches itself only to production, and not to the annulment of non-existence, for in production the annulment of non-existence is necessary, and therefore the act of the agent must necessarily be attached to non-existence. For according to the doctrine of the theologians, the existent possesses only two conditions: a condition in which it is absolutely non-existent and a condition in which it is actually existent.[1] The act of the agent, therefore, attaches itself to it, neither when it is actually existent, nor when it is non-existent*. Thus only the following alternatives remain: either the act of the agent does not attach itself to it at all, or it attaches itself to non-existence,[2] and non-existence changes itself into existence. He who conceives the agent in this way must regard the change of non-existence itself into existence, and of existence itself into non-existence, as possible, and must hold that the act of the agent can attach itself to the conversion of either of these opposites into the other. This is absolutely impossible in respect to the other opposites, not to speak of non-existence and existence.[3]

The theologians perceived the agent in the way the weak-sighted perceive the shadow of a thing instead of the thing itself and then mistake the shadow for it.[4] But, as you see, all these difficulties arise for the man who has not understood that production is the conversion of a thing from potential into actual existence, and that destruction is the reverse, i.e. the change from the actual into the potential.[5] It appears from this that possibility and matter are necessarily connected with anything becoming, and that what is subsistent in itself can be neither destroyed nor produced.[6]

The theory of the Ash'arites mentioned here by Ghazali, which regards the production of a substance, subsistent in itself, as possible,

but not so its destruction, is an extremely weak one, for the consequences which apply to destruction apply also to production, only, it was thought, because in the former case it is more obvious that 134
there was here a real difference. He then mentions the answers of the different sects to the difficulty which faces them on the question of annihilation.[1]

Ghazali says:

The Mu'tazilites say: the act proceeding from Him is an existent, i.e. 5
extinction, which He does not create in a substratum; at one and the same moment it annihilates* the whole world and disappears by itself, so that it does not stand in need of another extinction and thus of an infinite regress.[2]

And mentioning this answer to the difficulty, he says:

This is wrong for different reasons. First, extinction is not an intelligible existent, the creation of which can be supposed. Moreover, why, if it is 10
supposed to exist, does it disappear by itself without a cause for its disappearance? Further, why does it annihilate the world? For its creation and inherence in the essence of the world are impossible, since the inherent meets its substratum and exists together with it if only in an instant; if the extinction and existence of the world could meet, extinction would not be in opposition to existence and would not annihilate it[3] and, if extinction is created neither in the world nor in a substratum, where could its existence be in order to be opposed to the existence of the world? Another shocking feature in this doctrine is that God cannot annihilate part of the world without annihilating the remainder; indeed He can only create an extinction which annihilates the world in its totality, for if extinction is not in a substratum, it stands in one and the same relation to the totality of the world.

I say: 135

The answer is too foolish to merit refutation. Extinction and annihilation are synonymous, and if God cannot create annihilation, He cannot create extinction either. And even if we suppose extinction to be an existent, it could at most be an accident, but an accident without a substratum is absurd. And how can one imagine that the non-existent causes non-existence? All this resembles the talk of the 5
delirious.

Ghazali says:

The second sect, the Karramites, say that the act of God is annihilation, and annihilation signifies an existent which He produces in His essence and through which the world becomes non-existent.[4] In the same way, according to them, existence arises out of the act of creation which He

produces in His essence and through which the world becomes existent. Once again, this theory is wrong as it makes the Eternal a substratum for temporal production*. Further it is incomprehensible, for creation and likewise annihilation cannot be understood except as an existence, related to will and power, and to establish another entity besides the will and the power and their object, the world, is inconceivable.

I say:

The Karramites believe that there are here three factors: the agent, the act—which they call creation—and an object, i.e. that to which the act attaches itself, and likewise they believe that in the process of annihilation there are three factors: the annihilator, the act—which they call annihilation—and a non-existent. They believe that the act
136 inheres in the essence of the agent and according to them the rise of such a new condition[1] in the agent does not imply that the agent is determined by a temporal cause, for such a condition is of a relative and proportional type, and a new relation and proportion does not involve newness in the substratum; only those new events involve a change in the substratum which change the essence of the substratum, e.g. the changing of a thing from whiteness to blackness. Their statement, however, that the act inheres in the essence of the agent is a mistake; it is only a relation which exists between the agent and the object of the act which, when assigned to the agent, is called 'act' and when assigned to the object is called 'passivity'[2] Through this assumption the Karramites are not obliged to admit that, as the Ash'arites believed, the Eternal produces temporal reality[3] or that the Eternal is not eternal,[4] but the consequence which is forced upon them is that there must be a cause anterior to the Eternal, for, when an agent acts after not having acted, all the conditions for the existence of his object being fulfilled at the time he did not act, there must have arisen a new quality in the agent at the time when he acts, and each new event demands a new cause.[5] So there must be another cause before the first, and so on *ad infinitum*.

Ghazali says:

The third sect is that of the Ash'arites, who say that accidents pass away by themselves and cannot be imagined to persist, for if they persisted they could not, for this very reason, be imagined ever to pass
137 away.[6] Substances do not persist by themselves either, but persist by a persistence added to their existence. And if God had not created persistence, substances would have become non-existent through the non-existence of persistence. This too is wrong, in so far as it denies the evidence of the senses by saying that black and white do not persist and

that their existence is continually renewed; reason shrinks from this, as it does, too, from the statement that the body renews its existence at each moment, for reason judges that the hair which is on a man's head today is identical with, not similar to, the hair that was there yesterday, and judges the same about the black and the white.[1] There is yet another difficulty, namely, that when things persist through persistence, God's attributes must persist through persistence and this persistence persists through persistence and so on *ad infinitum*.[2]

I say:

This theory of the flux of all existing things is a useless one, although many ancients held it, and there is no end to the impossibilities it implies.[3] How could an existent come into existence, when it passes away by itself and existence passes away through its passing away? If it passed away by itself, it would have to come into existence by itself, and in this case that by which it becomes existent would be identical with that by which it passes away and this is impossible. For existence is the opposite of passing away, and it is not possible that two opposites should occur in the same thing in one and the same connexion. Therefore in a pure existent no passing away can be imagined, for if its existence determined its passing away, it would 138
be non-existent and existent at one and the same moment, and this is impossible. Further, if the existents persist through the persistence of an attribute by itself, will this absence of change in them occur through their existence or through their non-existence? The latter is impossible, so it follows that they persist because of their existence. If, then, all existents must persist because they are existent, and non-existence is something that can supervene upon them, why in Heaven's name do we need this attribute of persistence to make them persist? All this resembles a case of mental disorder. But let us leave this sect, for the absurdity of their theory is too clear to need refutation.

Ghazali says:

The fourth sect are a group of Ash'arites who say that accidents pass away by themselves, but that substances pass away when God does not create motion or rest or aggregation and disintegration in them, for it is impossible that a body should persist which is neither in motion nor at rest, since in that case it becomes non-existent.[4] The two parties of the Ash'arites incline to the view that annihilation is not an act, but rather a refraining from acting, since they do not understand how non-existence can be an act. All these different theories being false—say the philosophers 139
—it cannot any longer be asserted that the annihilation of the world is

possible, even if one were to admit that the world had been produced in time; for although the philosophers concede that the human soul has been produced, they claim the impossibility of its annihilation by means of arguments which are very close to those we have mentioned. For, according to the philosophers, nothing that is self-subsistent and does not inhere in a substratum[1] can be imagined as becoming non-existent after its existence, whether it is produced or eternal.[2] If one objects against them, that when water is boiled it disappears, they answer that it does not disappear, but is only changed into steam and the steam becomes water again, and its primary matter, i.e. its *hyle*, the matter in which the form of water inhered, persists when the water has become air, for the *hyle* only loses the form of water and takes up that of air; the air, having become cold again, condenses into water, but does not receive a new matter, for the matter is common to the elements and only the forms are changed in it.

I say:

He who affirms that accidents do not persist for two moments, and that their existence in substances is a condition of the persistence of those substances, does not know how he contradicts himself, for if the substances are a condition of the existence of the accidents—since the accidents cannot exist without the substances in which they inhere—and the accidents are assumed to be a condition for the existence of the substances, the substances must be necessarily a condition for their own existence; and it is absurd to say that something is a condition for its own existence. Further, how could the accidents be such a condition, since they themselves do not persist for two moments? For, as the instant is at the same time the end of their privation and the beginning of their period of existence, the substance must be destroyed in this instant, for in this instant there is neither anything of the privative period nor anything of the existent. If there were in the instant anything of the privative period or of the existent, it could not be the end of the former and the beginning of the latter.[3] And on the whole, that something which does not persist two moments should be made a condition for the persistence of something for two moments is absurd.[4] Indeed, a thing that persists for two moments is more capable of persisting than one which does not persist for two moments, for the existence of what does not persist for two moments is at an instant, which is in flux, but the existence of what persists for two moments is constant, and how can what is in flux be a condition for the existence of the constant, or how can what is only specifically persistent be a condition for the persistence of the

individually persistent? This is all senseless talk. One should know that he who does not admit a *hyle* for the corruptible* must regard the existent as simple and as not liable to corruption, for the simple does not alter and does not exchange its substance for another substance. Therefore Hippocrates says 'if man were made out of one thing alone, he could not suffer by himself'*,[1] i.e. he could not suffer corruption or change. And therefore he could not have become either, but would have to be an eternal existent. What he says here 141 about Avicenna of the difference between the production and the destruction of the soul is without sense.[2]

Ghazali says, answering the philosophers:

The answer is: So far as concerns the different sects you have mentioned, although we could defend each of them and could show that your refutation on the basis of your principle is not valid, because your own principles are liable to the same kind of objection, we will not insist on this point, but we will restrict ourselves to one sect and ask: How will you refute the man who claims that creation and annihilation take place through the will of God: if God wills, He creates, and if He wills, He annihilates, and this is the meaning of His being absolutely powerful, and notwithstanding this He does not alter in Himself, but it is only His act that alters? And concerning your objection that, inasmuch as an act must proceed from the agent, it cannot be understood which act can proceed from Him, when He annihilates, we answer: What proceeds from Him is a new fact, and the new fact is non-existence, for there was no non-existence; then it happened as something new, and this is what proceeds from Him. And if you say: Non-existence is nothing, how could it then proceed from Him? we reply: If non-existence is nothing, how could it happen? Indeed, 'proceeding from Him' does not mean anything but that its happening is related to His power. If its happening has an intelligible meaning, why should its relation to His power not be reasonable?[3]

I say:

All this is sophistical and wrong. The philosophers do not deny that a thing becomes non-existent when a destroying agent destroys it; they only say that the destroying act does not attach itself to it, in so far as the thing becomes non-existent, but in so far as it changes 142 from actual being to potential being, and non-existence results from this change, and it is in this way that non-existence is related to the agent. But it does not follow from the fact that its non-existence occurs after the act of the agent that the agent performs it primarily and essentially. For when it was conceded to Ghazali during the discussion of this problem that the non-existence of the corrupting

thing will necessarily occur after the act of the corrupting agent, he drew the conclusion that its non-existence would follow essentially and primarily from the act, but this is impossible. For the agent's act does not attach itself to its non-existence in so far as it is non-existent, i.e. primarily and essentially. And therefore*, if the perceptible existences were simple, they could neither be generated nor destroyed except through the act of the agent being attached to their non-existence essentially and primarily. But the act of the agent is only attached to non-existence accidentally and secondarily through its changing the object from actual existence into another form of existence in an act followed by non-existence, as from the change of a fire into air there follows the non-existence of the fire. This is the philosophical theory of existence and non-existence.

Ghazali says:

And what is the difference between you and the man who denies absolutely that non-existence can occur to accidents and forms, and who says that non-existence is nothing at all and asks how then it could occur and be called an occurrence and a new event? But no doubt non-existence can be represented as occurring to the accidents, and to speak of it as occurring has a sense whether you call it something real or not. And the relation of this occurrence, which has a reasonable sense, to the power of the Omnipotent, also has an intelligible meaning.[1]

143 I say:

That non-existence of this kind occurs is true, and the philosophers admit it, because it proceeds from the agent according to a second intention and accidentally; but it does not follow from its proceeding or from its having a reasonable meaning that it happens essentially or primarily, and the difference between the philosophers and those who deny the occurrence of non-existence is that the philosophers do not absolutely deny the occurrence of non-existence, but only its occurring primarily and essentially through the agent. For the act of the agent does not attach itself necessarily, primarily, and essentially to non-existence, and according to the philosophers non-existence happens only subsequently to the agent's act in reality. The difficulties ensue only for those who affirm that the world can be annihilated in an absolute annihilation.

Ghazali says:

Perhaps the philosophers will answer: This difficulty is only acute for those who allow the non-existence of a thing after its existence, for those may be asked what the reality is that occurs. But according to us philosophers the existing thing does not become non-existent, for we under-

stand by the fact that the accidents become non-existent the occurrence of their opposites, which are existing realities, and not the occurrence of mere non-existence which is nothing at all, and how could what is nothing at all be said to occur? For if hair becomes white, it is simply whiteness that occurs, for whiteness is something real; but one cannot say that what occurs is the privation of blackness.[1]

I say:

This answer on behalf of the philosophers is mistaken, for the philosophers do not deny that non-existence occurs and happens through the agent, not, however, according to a primary intention as would be the consequence for one who assumes that a thing can change into pure nothingness; no, non-existence, according to them, occurs when the form of the thing that becomes non-existent dis- 144
appears, and the opposite form appears. Therefore the following objection which Ghazali makes is valid.

Ghazali says:

This is wrong for two reasons. The first is: Does the occurrence of whiteness imply the absence of blackness? If they deny it, this is an affront to reason, and if they admit it, it may be asked: Is what is implied 5
identical with that which implies? To admit this is a contradiction, for a thing does not imply itself, and if they deny it, it may be asked: Has that which is implied an intelligible meaning? If they deny it, we ask, 'How do you know, then, that it is implied, for the judgement that it is implied presupposes that it has a sensible meaning?' If they admit this, we ask; 'Is this thing which is implied and has a sensible meaning, i.e. the absence of blackness, eternal or temporal?' The answer 'eternal' is impossible; if they answer 'temporal', how should what is described as occurring temporally not be clearly understood? And if they answer 'neither eternal nor temporal', this is absurd, for if it were said before the occurrence of whiteness that blackness was non-existent, it would be false, whereas afterwards it 10
would be true.[2] It occurred, therefore, without any doubt, and this occurrence is perfectly intelligible and must be related to the Omnipotent.

I say:

This is an occurrence which is perfectly intelligible and must be related to the Omnipotent, but only accidentally and not essentially, for the act of the agent does not attach itself to absolute non-existence, nor to the non-existence of anything, for even the Omnipotent cannot bring it about that existence should become identical with non-existence.[3] The man who does not assume matter cannot be freed from this difficulty, and he will have to admit that the act of the agent is attached to non-existence primarily and essentially. All this is

145 clear, and there is no need to say more about it. The philosophers, therefore, say that the essential principles of transitory things are two: matter and form, and that there is a third accidental principle, privation, which is a condition of the occurrence of what becomes, namely as preceding it: if a thing becomes, its privation disappears, and if it suffers corruption, its privation arises.[1]

Ghazali says:

5 The second objection is that according to the philosophers there are accidents which can become non-existent otherwise than through their contrary, for instance, motion has no contrary, and the opposition between motion and rest is, according to the philosophers, only the opposition of possession and non-possession,[2] i.e. the opposition of being and not-being, not the opposition of one being to another being,[3] and the meaning of rest is the absence of motion, and, when motion ceases, rest does not supervene as its contrary, but is a pure non-existence.[4] The same is the case with those qualities which belong to the class of entelechies, like the impression of the sensible species on the vitreous humour of the eye[5] and still more the impression of the forms of the intelligibles on the soul; they become
10 existent without the cessation of a contrary, and their non-existence only means the cessation of their existence without the subsequent occurrence of their opposites, and their disappearance is an example of pure non-existence which arises. The occurrence of such a non-existence is an understandable fact, and that which can be understood as occurring by itself, even if it is not a real entity, can be understood as being related to the power of the Omnipotent. Through this it is clear that, when one imagines an event as occuring through the eternal Will, it is unessential, whether the occurring event is a becoming or a vanishing.

I *say*:

On the contrary, when non-existence is assumed to proceed from the agent as existence proceeds from it, there is the greatest difference between the two. But when existence is assumed as a primary fact and non-existence as a secondary fact, i.e. when non-existence is assumed to take place through the agent by means of a kind of existence, i.e. when the agent transforms actual existence into poten-
146 tial existence by removing the actuality—which is a quality possessed by the substrate—then it is true. And from this point of view the philosophers do not regard it as impossible that the world should become non-existent in the sense of its changing into another form,[6] for non-existence is in this case only a subsequent occurrence and a secondary fact. But what they regard as impossible is that a thing should disappear into absolute nothingness, for then the act of the

agent would have attached itself to non-existence, primarily and essentially.

Throughout this discussion Ghazali has mistaken the accidental for the essential, and forced on the philosophers conclusions which they themselves regard as impossible. This is in general the character of the discussion in this book. A more suitable name, therefore, for this book would be 'The Book of Absolute Incoherence', or 'The Incoherence of Ghazali', not 'The Incoherence of the Philosophers', and the best name for my book 'The Distinction between Truth and Incoherent Arguments'.[1]

THE THIRD DISCUSSION 147

The demonstration of their confusion in saying that God is the agent and the maker of the world and that the world is His product and act, and the demonstration that these expressions are in their system only metaphors without any real sense

Ghazali says:

All philosophers, except the materialists, agree that the world has a maker, and that God is the maker and agent of the world and the world is His act and His work. And this is an imposture where their principle is concerned, nay it cannot be imagined that according to the trend of their principle the world is the work of God, and this for three reasons, from the point of view of the agent, from the point of view of the act, and from the point of view of the relation common to act and agent. As concerns the first point, the agent must be willing, choosing, and knowing what he wills to be the agent of what he wills, but according to them God does not will, He has no attribute whatever, and what proceeds from Him proceeds by the compulsion of necessity. The second point is that the world is eternal, but 'act' implies production. And the third point is that God is unique, according to their principles, from all points of view, and from one thing—according to their principles—there can only proceed one thing. The world, however, is constituted out of diverse components; how could it therefore proceed from Him?[2]

I say: 148

Ghazali's words 'The agent must be willing, choosing, and knowing what he wills to be the agent of what he wills' are by no means self-evident and cannot be accepted as a definition of the maker of the world without a proof, unless one is justified in inferring from the

empirical to the divine. For we observe in the empirical world two kinds of agents, one which performs exclusively one thing and this essentially, for instance warmth which causes heat and coldness which causes cold; and this kind is called by the philosophers natural agents. The second kind of agents are those that perform a certain act at one time and its opposite at another; these, acting only out of knowledge and deliberation, are called by the philosophers voluntary and selective agents. But the First Agent cannot be described as having either of these two actions, in so far as these are ascribed to transitory things by the philosophers. For he who chooses and wills lacks the things which he wills, and God cannot lack anything He wills. And he who chooses makes a choice for himself of the better of two things, but God is in no need of a better condition. Further, when the willer has reached his object, his will ceases and, generally speaking, will is a passive quality and a change, but God is exempt from passivity and change.[1] God is still farther distant from natural action, for the act of the natural thing is a necessity in its substance, but is not a necessity in the substance of the willer, and belongs to its entelechy.[2] In addition, natural action does not proceed from knowledge: it has, however, been proved that God's act does proceed from knowledge. The way in which God becomes an agent and a willer has not become clear in this place, since there is no counterpart to His will in the empirical world. How is it therefore possible to assert that an agent can only be understood as acting through deliberation and choice? For then this definition is indifferently applied to the empirical and the divine, but the philosophers do not acknowledge this extension of the definition, so that from their refusal to acknowledge this definition as applying to the First Agent, it cannot be inferred that they deny that He acts at all.

This is, of course, self-evident and not the philosophers are impostors, but he who speaks in this way, for an impostor is one who seeks to perplex, and does not look for the truth. He, however, who errs while seeking the truth cannot be called an impostor, and the philosophers, as a matter of fact, are known to seek the truth, and therefore they are by no means impostors. There is no difference between one who says that God wills with a will which does not resemble the human will, and one who says that God knows through a knowledge which does not resemble human knowledge; in the same way as the quality of His knowledge cannot be conceived, so the quality of His will cannot be conceived.

Ghazali says:

We will now test each of these three reasons at the same time as the illusory arguments which the philosophers give in their defence.

The first reason. We say: 'Agent' means someone from whom there 150
proceeds an act with the will to act according to choice and with the knowledge of the object willed. But according to the philosophers the world stands in relation to God as the effect to the cause, in a necessary connexion which God cannot be imagined to sever, and which is like the connexion between the shadow and the man, light and the sun, but this is not an act at all. On the contrary, he who says that the lamp makes the light and the man makes the shadow uses the term vaguely, giving it a sense much wider than its definition, and uses it metaphorically, relying on the fact that there is an analogy between the object originally meant by it and the object to which it is transferred, i.e. the agent is in a general sense a cause, the lamp is the cause of the light, and the sun is the cause of luminosity; but the agent is not called a creative agent from the sole fact that it is a cause, but by its being a cause in a special way, namely that it causes through will and through choice.[1] If, therefore, one said that neither a wall, nor a stone, nor anything inanimate is an agent,[2] and that only animals have actions, this could not be denied and his statement would not be called false. But according to the philosophers a stone has an action, namely falling and heaviness and a centripetal tendency, just as fire has an action, namely heating, and a wall has an action, namely a centripetal tendency and the throwing of a shadow, and, according to them each of these actions proceeds from it as its agent; which is absurd.[3] 5

I say:

There are in brief two points here, the first of which is that only those who act from deliberation and choice are regarded as acting causes, and the action of a natural agent producing something else is not counted among acting causes, while the second point is that the philosophers regard the procession of the world from God as the necessary connexion obtaining between shadow and the person, and luminosity and the sun, and the downward rolling in relation to the 10
stone, but that this cannot be called an action because the action can be separated* from the agent.[4]

I say:

All this is false. For the philosophers believe that there are four causes: agent, matter, form, and end. The agent is what causes some other thing to pass from potency to actuality and from non-existence to existence; this actualization occurs sometimes from deliberation and choice, sometimes by nature, and the philosophers do 151
not call a person who throws a shadow an agent, except metaphorically, because the shadow cannot be separated from the man, and by

common consent the agent can be separated from its object, and the philosophers certainly believe that God is separated[1] from the world and according to them He is not to be classed with this kind of natural cause. Nor is He an agent in the sense in which any empirical agent, either voluntary or involuntary, is; He is rather the agent of these causes, drawing forth the Universe from non-existence to existence and conserving it,[2] and such an act is a more perfect and glorious one than any performed by the empirical agents. None of these objections therefore touch them, for they believe that God's act proceeds from Him through knowledge, not through any necessity which calls for it, either in His essence or outside His essence, but through His grace and His bounty.[3] He is necessarily endowed with will and choice in their highest form, since the insufficiency which is proper to the empirical willer does not pertain to Him. And these are the very words of Aristotle in one of his metaphysical treatises: We were asked how God could bring forth the world out of nothing, and convert it into something out of nothing, and our answer is this: the
152 Agent must be such that His capacity must be proportionate to His power and His power proportionate to His will and His will proportionate to His wisdom, if not, His capacity would be weaker than His power, His power weaker than His will, and His will weaker than His wisdom. And if some of His powers were weaker than others, there would be no difference between His powers and ours, and imperfection would attach to Him as to us—a very blasphemous theory. But in the opposite case each of these powers is of the utmost perfection. When He wills He has the power, and when He has the power He has the capacity and all this with the greatest wisdom. And He exists, making what He wants out of nothing. And this is only astonishing through this imperfection which is in us.[4] And Aristotle said also: Everything that is in this world is only set together through the power which is in it from God; if this power did not exist in the things, they could not last the twinkling of an eye.[5]

I say:

Composite existence is of two classes; in the one class the composition is something additional to the existence of the composed, but in the other the composition is like the existence of matter and form and in these existents the existence cannot be regarded as anterior to the composition, but on the contrary the composition is the cause of their existence and anterior to it.[6] If God therefore is the cause of the composition of the parts of the world, the existence

of which is in their composition, then He is the cause of their existence and necessarily he who is the cause of the existence of anything whatever is its agent. This is the way in which according to the philosophers this question must be understood, if their system is truly explained to the student.

Ghazali says, speaking on behalf of the philosophers: 153

The philosophers may say: we call an object anything that has no necessary existence by itself, but exists through another, and we call its cause the agent, and we do not mind whether the cause acts by nature or voluntarily, just as you do not mind whether it acts by means of an instrument or without an instrument, and just as 'act' is a genus subdivided into 'acts which occur by means of an instrument' and 'acts which occur without an instrument', so it is a genus subdivided into 'acts which occur by nature' and 'acts which occur voluntarily'. The proof is that, when we speak of an act which occurs by nature, our words 'by nature' are not contradictory to the term 'act'; the words 'by nature' are not used to exclude or contradict the idea of act, but are meant only to explain the specific character of the act, just as, when we speak of an act effected directly without an instrument, there is no contradiction, but only a specification and an explanation. And when we speak of a 'voluntary act', there is not a redundancy as in the expression a 'living being-man';[1] it is only an explanation of its specific character, like the expression, 'act performed by means of an instrument'. If, however, the word 'act' included the idea of will, and will were essential to act, in so far as it is an act, our expression 'natural act' would be a contradiction.

I say: 5

The answer, in short, has two parts. The first is that everything that is necessary through another thing is an object of what is necessary by itself,[2] but this can be opposed, since that through which the 'necessary through another' has its necessary existence need not be an agent, unless by 'through which it has its necessary existence' is meant that which is really an agent, i.e., that which brings potency into act.[3] The second part is that the term 'agent' seems like a genus for that which acts by choice and deliberation and for that which acts by nature; this is true, and is proved by our definition of the term 10 'agent'. Only this argument wrongly creates the impression that the 154 philosophers do not regard the first agent as endowed with will. And this dichotomy that everything is either of necessary existence by itself or existent through another is not self-evident.

Ghazali, refuting the philosophers, says:

This designation is wrong, for we do not call any cause whatsoever an 5

agent, nor any effect an object; for, if this were so, it would be not right to say that the inanimate has no act and that only the living exhibit acts—a statement generally admitted.

I say:

His assertion that not every cause is called an agent is true, but his argument that the inanimate is not called an agent is false, for the denial that the inanimate exhibits acts excludes only the rational and voluntary act, not act absolutely, for we find that certain inanimate things have powers to actualize things like themselves; e.g. fire, which changes anything warm* and dry into another fire like itself, through converting it from what it has in potency into actuality. Therefore fire cannot make a fire like itself in anything that has not the potency or that is not in readiness to receive the actuality of fire. The theologians, however, deny that fire is an agent, and the discussion of this problem will follow later. Further, nobody doubts that there are in the bodies of animals powers which make the food a part of the animal feeding itself and generally direct the body of the animal. If we suppose them withdrawn, the animal would die, as Galen says.[1] And through this direction we call it alive, whereas in the absence of these powers we call it dead.

Ghazali goes on:

If the inanimate is called an agent, it is by metaphor, in the same way as it is spoken of metaphorically as tending and willing, since it is said that the stone falls down, because it tends and has an inclination to the centre, but in reality tendency and will can only be imagined in connexion with knowledge and an object desired and these can only be imagined in animals.

I say:

If by 'agent' or 'tendency' or 'willing' is meant the performance of an act of a willer, it is a metaphor, but when by these expressions is meant that it actualizes another's potency, it is really an agent in the full meaning of the word.

Ghazali then says:

When the philosophers say that the term 'act' is a genus which is subdivided into 'natural act' and 'voluntary act', this cannot be conceded; it is as if one were to say that 'willing' is a genus which is subdivided into willing accompanied by knowledge of the object willed, and willing without knowledge of the object willed. This is wrong, because will necessarily implies knowledge, and likewise act necessarily implies will.

I say:

The assertion of the philosophers that 'agent' is subdivided into 'voluntary' and 'non-voluntary agent' is true, but the comparison with a division of will into rational and irrational is false, because in the definition of will knowledge is included, so that the division has no sense. But in the definition of 'act' knowledge is not included, because actualization of another thing is possible without knowing it. This is clear, and therefore the wise say that God's word: 'a wall which wanted to fall to pieces'[1] is a metaphor.

Ghazali proceeds:

When you affirm that your expression 'natural act' is not a contradiction in terms, you are wrong; there is as a matter of fact a contradiction when 'natural act' is taken in a real sense, only this contradiction is not at once evident to the understanding nor is the incompatibility of nature and act felt acutely, because this expression is employed metaphorically; for since nature is in a certain way a cause and the agent is also a cause, nature is called an agent metaphorically. The expression 'voluntary act' is as much redundant as the expression 'he wills and knows what he wills'.

I say:

This statement is undoubtedly wrong, for what actualizes another thing, i.e. acts on it, is not called agent simply by a metaphor, but in reality, for the definition of 'agent' is appropriate to it. The division of 'agent' into 'natural' and 'voluntary agent' is not the division of an equivocal term, but the division of a genus. Therefore the division of 'agent' into 'natural' and 'voluntary agent' is right, since that which actualizes another can also be divided into these two classes. 157

Ghazali says:

However, as it can happen that 'act' is used metaphorically and also in its real sense, people have no objection in saying 'someone acted voluntarily', *meaning that he acted not in a metaphorical sense, but really, in* the way in which it is said 'he spoke with his tongue', or 'he saw with his eye'. For, since one is permitted to use 'heart' metaphorically for 'sight', and motion of the head or hand for word—for one can say 'He nodded assent'—it is not wrong to say 'He spoke with his tongue and he saw with his eye', in order to exclude any idea of metaphor. This is a delicate point, but let us be careful to heed the place where those stupid people slipped.

I say:

Certainly it is a delicate point that a man with scientific pretensions should give such a bad example and such a false reason to explain the repugnance people seem to have in admitting the division

of 'act' into 'natural' and 'voluntary act'. No one ever says 'He saw with his eye, and he saw without his eye' in the belief that this is a division of sight; we only say 'He saw with his eye' to emphasize the fact that real sight is meant, and to exclude the metaphorical sense of 'sight'. And the intelligent in fact think that for the man who
158 understands immediately that the real meaning is intended, this connecting of sight with the eye is almost senseless. But when one speaks of 'natural' and 'voluntary act', no intelligent person disagrees that we have here a division of 'act'. If, however, the expression 'voluntary act' were similar to 'sight with the eye' the expression 'natural act' would be metaphorical. But as a matter of fact the
5 natural agent has an act much more stable than the voluntary agent, for the natural agent's act is constant—which is not the case with the act of the voluntary agent.[1] And therefore the opponents of the theologians might reverse the argument against them and say that 'natural act' is like 'sight with the eye' and 'voluntary act' is a metaphor—especially according to the doctrine of the Ash'arites,
10 who do not acknowledge a free will in man and a power to exercise an influence on reality. And if this is the case with the agent in the empirical world, how can we know that it is an accurate description of the real Agent in the divine world to say that He acts through knowledge and will?[2]

Ghazali says, speaking on behalf of the philosophers:

> The philosophers may reply: The designation 'agent' is known only through language. However, it is clear to the mind that the cause of a thing can be divided into voluntary and non-voluntary cause, and it may be disputed whether or not in both cases the word 'act' is used in a proper sense, but it is not possible to deny this, since the Arabs say that fire burns, a sword cuts, that snow makes cold, that scammony purges, that bread stills hunger and water thirst, and our expression 'he beats' means he performs the act of beating, and 'it burns' it performs the act of burning, and 'he cuts' he performs the act of cutting; if you say, therefore, that its use is quite metaphorical, you are judging without any evidence.

I say:

159 This, in short, is a common-sense argument. The Arabs indeed call that which* exerts an influence on a thing, even if not voluntary, an agent, in a proper, not in a metaphorical, sense. This argument, however, is dialectical and of no importance.

Ghazali replies to this:

5 The answer is that all this is said in a metaphorical way and that only

a voluntary act is a proper act. The proof is that, if we assume an event which is based on two facts, the one voluntary, the other involuntary, the mind relates the act to the voluntary fact. Language expresses itself in the same way, for if a man were to throw another into a fire and kill him, it is the man who would be called his killer, not the fire. If, however, the term were used in the same sense of the voluntary and the non-voluntary, and it were not that the one was a proper sense, the other a metaphorical, why should the killing be related to the voluntary, by language, usage, and reason, although the fire was the proximate cause of the killing and the man who threw the other into the fire did nothing but bring man and fire together? Since, however, the bringing together is a voluntary act and the influence of the fire non-voluntary, the man is called a killer and the fire only metaphorically so. This proves that the word 'agent' is used of one whose act proceeds from his will, and, behold, the philosophers do not regard God as endowed with will and choice.

I say:

This is an answer of the wicked who heap fallacy on fallacy. 160
Ghazali is above this, but perhaps the people of his time obliged him to write this book to safeguard himself against the suspicion of sharing the philosophers' view. Certainly nobody attributes the act to its instrument, but only to its first mover.[1] He who killed a man by fire is in the proper sense the agent and the fire is the instrument of the killing, but when a man is burned by a fire, without this fact's depending on someone's choice, nobody would say that the fire burned him metaphorically. The fallacy he employs here is the well-known one *a dicto secundum quid ad dictum simpliciter*, e.g. to say of a negro, because his teeth are white, that he is white absolutely.[2] The philosophers do not deny absolutely that God wills, for He is an agent through knowledge and from knowledge, and He performs the better of two contrary acts, although both are possible; they only affirm that He does not will in the way that man wills.

Ghazali says, answering in defence of the philosophers:

If the philosophers say: We do not mean anything by God's being an agent but that He is the cause of every existent besides Himself and that the world has its subsistence through Him, and if the Creator did not exist, the existence of the world could not be imagined. And if the Creator should be supposed non-existent, the world would be non-existent too, just as the supposition that the sun was non-existent would imply the non-existence of light. This is what we mean by His being an agent. If our opponents refuse to give this meaning to the word 'act', well, we shall not quibble about words.

I say:

161 Such an answer would mean that the philosophers would concede to their opponents that God is not an agent, but one of those causes without which a thing cannot reach its perfection; and the answer is wrong, for against them it might be deduced from it that the First Cause is a principle, as if it were the form of the Universe, in the way the soul is a principle for the body; no philosopher, however, affirms this.

Then Ghazali says, answering the philosophers:

We say: Our aim is to show that such is not the meaning of 'act' and 'work'. These words can mean only that which really proceeds from the will. But you reject the real meaning of 'act', although you use this word, which is honoured amongst Muslims. But one's religion is not perfect when one uses words deprived of their sense. Declare therefore openly that God has no act, so that it becomes clear that your belief is in opposition to the religion of Islam, and do not deceive by saying that God is the maker of the world and that the world is His work, for you use the words, but reject their real sense!

I say:

This would indeed be a correct conclusion against the philosophers, if they should really say what Ghazali makes them say. For in this case they could indeed be forced to admit that the world has neither a natural nor a voluntary agent, nor that there is another type of agents besides these two. He does not unmask their imposture by his words, but he himself deceives by ascribing to them theories which they do not hold.

Ghazali says:

162 The second reason for denying that the world is according to the principle of the philosophers an act of God is based on the implication of the notion of an act. 'Act' applies to temporal production, but for them the world is eternal and is not produced in time. The meaning of 'act' is 'to convert from not-being into being by producing it' and this cannot be imagined in the eternal, as what exists already cannot be brought into existence. Therefore 'act' implies a temporal product, but according to them the world is eternal; how then could it be God's act?

I say:

If the world were by itself eternal and existent (not in so far as it is moved, for each movement is composed of parts which are produced), then, indeed, the world would not have an agent at all. But if the meaning of 'eternal' is that it is in everlasting production and that

this production has neither beginning nor end, certainly the term 'production' is more truly applied to him who brings about an ever- 10
lasting production than to him who procures a limited production. In this way the world is God's product and the name 'production' is even more suitable for it than the word 'eternity', and the philosophers only call the world eternal to safeguard themselves against the word 'product' in the sense of 'a thing produced after a state of non-existence, from something, and in time'.

Then Ghazali says, on behalf of the philosophers:

The philosophers may perhaps say: The meaning of 'product' is 'that which exists after its non-existence'. Let us therefore examine if what proceeds from the agent when He produces, and what is connected with 163
Him, is either pure existence, or pure non-existence, or both together. Now, it is impossible to say that previous non-existence was connected with Him, since the agent cannot exert influence upon non-existence, and it is equally impossible to say 'both together', for it is clear that non-existence is in no way connected with the agent, for non-existence *qua* non-existence needs no agent at all. It follows therefore that what is connected with Him is connected with Him in so far as it is an existent, that what proceeds from Him is pure existence, and that there is no other relation to Him than that of existence. If existence is regarded as everlasting, then this relation is everlasting, and if this relation is everlasting, then the term to which this relation refers is the most illustrious and the 5
most enduring in influence, because at no moment is non-existence connected with it. Temporal production implies therefore the contradictory statements that it must be connected with an agent, that it cannot be produced, if it is not preceded by non-existence, and that non-existence cannot be connected with the agent.

And if previous non-existence is made a condition of the existent, and it is said that what is connected with the agent is a special existence, not any existence, namely an existence preceded by non-existence, it may be answered that its being preceded by non-existence cannot be an act of an agent or a deed of a maker, for the procession of this existence from its agent cannot be imagined, unless preceded by non-existence; neither, therefore*, can the precedence of this non-existence be an act of the agent and connected with him, nor* the fact that this existence is preceded by non-existence. Therefore to make non-existence a condition for the act's becoming an act is to impose as a condition one whereby the agent cannot exert any influence under any condition.[1]

I say:

This is an argument put forward on this question by Avicenna from the philosophical side. It is sophistical, because Avicenna leaves out one of the factors which a complete division would have to state.[2] 10

For he says that the act of the agent must be connected either with an existence or with a non-existence, previous to it and in so far as it is
164 non-existence, or with both together, and that it is impossible that it should be connected with non-existence, for the agent does not bring about non-existence and, therefore, neither can it effect both together. Therefore the agent can be only connected with existence, and production is nothing but the connexion of act with existence, i.e. the act of the agent is only bringing into existence,[1] and it is immaterial whether this existence be preceded by non-existence or not. But this argument is faulty, because the act of the agent is only connected with existence in a state of non-existence, i.e. existence in potentiality, and is not connected with actual existence, in so far as it is actual, nor with non-existence, in so far as it is non-existent. It is only connected with imperfect existence in which non-existence inheres. The act of the agent is not connected with non-existence, because non-existence is not actual; nor is it connected with existence which is not linked together with non-existence, for whatever has reached its extreme perfection of existence needs neither causation nor cause.[2] But existence which is linked up with non-existence only exists as long as the producer exists. The only way to escape this difficulty is to assume that the existence of the world has always been and will always be linked together with non-existence, as is the case with movement, which is always in need of a mover. And the acknowledged philosophers believe that such is the case with the celestial world in its
165 relation to the Creator, and *a fortiori* with the sublunary world. Here lies the difference between the created and the artificial, for the artificial product, once produced, is not tied up with non-existence which would be in need of an agent for the continued sustenance of the product.[3]

Ghazali continues:

And your statement, theologians, that what exists cannot be made to exist, if you mean by it, that its existence does not begin after its non-existence, is true; but if you mean that it cannot become an effect[4] at the time when it exists, we have shown that it can only become an effect at the time when it exists, not at the time when it does not exist. For a thing only exists when its agent causes it to exist, and the agent only causes it to exist at the time when, proceeding from it, it exists, not when the thing does not exist; and the causation is joined with the existence of the agent and the object, for causation is the relation between cause and effect. Cause, effect, and causation are simultaneous with existence and there is no priority here, and therefore there is causation only for what exists, if

by 'causation' is meant the relation through which the agent and its object exist. The philosophers say: It is for this reason that we have come to the conclusion that the world, which is the work of God, is without beginning and everlasting, and that never at any moment was God not its agent, for existence is what is joined with the agent and as long as this union lasts existence lasts, and, if this union is ever discontinued, existence ceases. It is by no means what you theologians mean, that if the Creator were supposed to exist no longer, the world could still persist; you, indeed, believe that the same relation prevails as between the builder and the building, for the building persists when the builder has disappeared. But the persistence of the building does not depend on the builder, but on the strength of the structure in its coherence, for if it had not the power of coherence—if it were like water, for example—it would not be supposed to keep the shape which it received through the act of the agent.[1]

I say: 166

Possibly the world is in such a condition, but in general this argument is not sound. For it is only true that the causing agent is always connected with the effect*, in so far as the effect actually exists without this actuality's having any insufficiency and any potency, if one imagines that the essence of the effect* lies in its being an effect, for then the effect can only be an effect through the causation of the agent. But if its becoming an effect through a cause is only an addition to its essence, then it is not necessary that its existence should cease when the relation between the causing agent and the effect is interrupted. If, however, it is not an addition, but its essence consists in this relation of being an effect, then what Avicenna says is true. However, it is not true of the world, for the world does not exist on account of this relation, but it exists on account of its substance and the relation is only accidental to it.[2] Perhaps what Avicenna says is true concerning the forms of the celestial bodies, in so far as they perceive the separate immaterial forms; and the philosophers affirm this, because it is proved that there are immaterial forms whose existence consists in their thinking, whereas knowledge in this sublunary world only differs from its object because its object inheres in matter.[3]

Ghazali, answering the philosophers, says:

Our answer is that the act is connected with the agent only in so far as it comes into being, but not in so far as it is preceded by non-existence nor in so far as it is merely existent. According to us the act is not connected with the agent for a second moment after its coming to be, for then it exists; it is only connected with it at the time of its coming to be in so far

167 as it comes to be and changes from non-existence into existence. If it is denied the name of becoming, it cannot be thought to be an act nor to be connected with the agent. Your statement, philosophers, that a thing's coming to be means its being preceded by non-existence, and that its being preceded by non-existence does not belong to the act of the agent and the deed of the producer, is true; but this prior non-existence is a necessary condition for the existent's being an act of the agent. For existence not preceded by non-existence is everlasting, and cannot be truly said* to be an act of the agent. Not all conditions necessary to make an act an act need proceed from the agent's act; the essence, power, will, and knowledge of the agent are a condition of his being an agent, but do not derive from him. An act can only be imagined as proceeding from an existent, and the existence, will, power, and knowledge of the agent are a condition of his being an agent, although they do not derive from him.[1]

I say:

All this is true. The act of the agent is only connected with the effect, in so far as it is moved, and the movement from potential to actual being is what is called becoming. And, as Ghazali says, non-existence is one of the conditions for the existence of a movement through a mover. Avicenna's argument that when it is a condition for the act of the agent to be connected with the existence, the absence of this connexion implies that the agent is connected with its opposite, i.e. non-existence, is not true. But the philosophers affirm that there are existents whose essential specific differences consist in motion, e.g. the winds[2] and so on;[3] and the heavens and the sublunary bodies belong to the genus of existents whose existence lies in
168 their movement, and if this is true, they are eternally in a continual becoming. And therefore, just as the eternal existent is more truly existent than the temporal, similarly that which is eternally in becoming is more truly coming to be than that which comes to be only during a definite time.[4] And if the substance of the world were not in this condition of continual movement, the world would not, after its existence, need the Creator, just as a house after being completed and finished does not need the builder's existence, unless that were true which Avicenna tried to prove in the preceding argument, that the existence of the world consists only in its relation to the agent; and we have already said that we agree with him so far as this concerns the forms of the heavenly bodies.

Therefore the world is during the time of its existence in need of the presence of its agent for both reasons together, namely, because the substance of the world is continually in motion and because its

form, through which it has its subsistence and existence, is of the nature of a relation, not of the nature of a quality, i.e. the shapes and states which have been enumerated in the chapter on quality.[1] A form which belongs to the class of quality, and is included in it, is, when it exists and its existence is finished, in no need of an agent. All this will solve the problem for you, and will remove from you the perplexity which befalls man through these contradictory statements.[2]

Ghazali says, on behalf of the philosophers: 169

The philosophers might say: If you acknowledge that it is possible that the act should be simultaneous with the agent and not posterior to it, it follows that if the agent is temporal the act must be temporal, and if the agent is eternal the act must be eternal. But to impose as a condition that the act must be posterior in time to the agent is impossible, for when a man moves his finger in a bowl of water, the water moves at the same time as the finger, neither before nor after, for if the water moved later than the finger, finger and water would have to be in one and the same space before the water disconnected itself,[3] and if the water moved before the finger, the water would be separated from the finger and notwithstanding its anteriority* would be an effect* of the finger performed for its sake.[4] But if we suppose the finger eternally moving in the water, the movement of the water will be eternal too, and will be, notwithstanding its eternal character, an effect and an object, and the supposition of eternity does not make this impossible. And such is the relation between the world and God.

I say:

This is true in so far as it concerns the relation of movement and mover, but in regard to the stable existent or to that which exists without moving or resting by nature (if there exist such things*) and their relation to their cause, it is not true.[5] Let us therefore admit this relation between the agent and the world only in so far as the world is in motion. As for the fact that the act of every existent must be conjoined with its existence, this is true, unless something occurs to this existent which lies outside its nature, or one or another accident occurs to it,[6] and it is immaterial whether this act be natural or voluntary. See, therefore, what the Ash'arites did who assumed an eternal existent, but denied that He acted during His eternal existence, but then, however, allowed this agent to act eternally in the future, so that the eternal existence of the Eternal would become divided into two parts, an eternal past during which He does not act and an eternal future during which He acts! But for the philosophers all this is confusion and error. 170

Ghazali answers the philosophers on the question of priority:

We do not say that the simultaneity of agent and act is impossible, granted that the act is temporal, e.g. the motion of the water, for this happens after its non-being and therefore it can be an act, and it is immaterial whether this act be posterior to the agent or simultaneous with him. It is only an *eternal* act that we consider impossible, for to call an act that which does not come into being out of not-being is pure metaphor and does not conform to reality.[1] As to the simultaneity of cause and effect, cause and effect can be either both temporal or both eternal, in the way in which it may be said that the eternal knowledge is the cause of the fact that the Eternal is knowing; we are not discussing this, but only what is called an act.[2] For the effect of a cause is not called the act of a cause, except metaphorically.[3] It can only be called an act on condition that it comes into being out of non-being. And if a man thinks he may describe the everlasting Eternal metaphorically as acting on something, what he thinks possible is only the use of a metaphor.[4] And your argument, philosophers—that if we suppose the movement of the water to be eternal and everlasting with the movement of the finger, this does not prevent the movement of the water from being an act—rests on a confusion, for the finger has no act, the agent is simply the man to whom the finger belongs, that is the man who wills the movement; and, if we suppose him to be eternal, then the movement of the finger is his act, because every part of this movement comes out of not-being,[5] and in this sense it is an act. So far as the motion of the water is concerned, we do not say that it occurs through the act of this man—it is simply an act of God.[6] In any case, it is only an act in so far as it has come to be, and if its coming to be is everlasting, it is still an act, because it has come to be.

Then Ghazali gives the philosophers' answer:

The philosophers may say: 'If you acknowledge that the relation of the act to the agent, in so far as this act is an existent, is like the relation of effect and cause and you admit that the causal relation may be everlasting, we affirm that we do not understand anything else by the expression "that the world is an act" than that it is an effect having an everlasting relation to God. Speak of this as an "act" or not just as you please, for do not let us quibble about words when their sense has once been established.'

171 Ghazali says:

Our answer is that our aim in this question is to show that you philosophers use those venerable names without justification, and that God according to you is not a true agent, nor the world truly His act, and that you apply this word metaphorically—not in its real sense. This has now been shown.

I say:

In this argument he supposes that the philosophers concede to him that they only mean by God's agency that He is the cause of the world, and nothing else, and that cause and effect are simultaneous.[1] But this would mean that the philosophers had abandoned their original statement, for the effect follows only from its cause, in so far as it is a formal or final cause, but does not necessarily follow from its efficient cause, for the efficient cause frequently exists without the effect's existing.[2] Ghazali acts here like a guardian who tries to extract from his ward the confession* of having done things he did not allow him to do. The philosophers' theory, indeed, is that the world has an agent acting from eternity and everlasting, i.e. converting the world eternally from non-being into being. This question was formerly a point of discussion between Aristotelians and Platonists. Since Plato believed in a beginning of the world, there could not in his system be any hesitation in assuming a creative agent for the world. But since Aristotle supposed the world to be eternal, the Platonists raised difficulties against him, like the one which occupies us here, and they said that Aristotle did not seem to admit a creator of the world. If was therefore necessary for the Aristotelians to defend him with arguments which establish that Aristotle did indeed believe that the world has a creator and an agent.[3] This will be fully explained in its proper place. 172

The principal idea is that according to the Aristotelians the celestial bodies subsist through their movement, and that He who bestows this movement is in reality the agent of this movement and, since the existence of the celestial bodies only attains its perfection through their being in motion, the giver of this motion is in fact the agent of the celestial bodies. Further, they prove that God is the giver of the unity through which the world is united, and the giver of the unity which is the condition of the existence of the composite; that is to say, He provides the existence of the parts through which the composition occurs, because this action of combining is their cause (as is proved), and such is the relation of the First Principle to the whole world. And the statement that the act has come to be,[4] is true, for it is movement, and the expression 'eternity' applied to it means only that it has neither a first nor a last term. Thus the philosophers do not mean by the expression 'eternal' that the world is eternal through eternal constituents,[5] for the world consists of movement. And since the Ash'arites did not understand this, it was difficult for them to attribute eternity at the same time to God and to the

world. Therefore the term' eternal becoming' is more appropriate to the world than the term 'eternity'.

173 Ghazali says:

The third reason why it is impossible for the philosophers to admit according to their principle that the world is the act of God is because of a condition which is common to the agent and the act, namely, their assertion that out of the one only one can proceed.[1] Now the First Principle is one in every way, and the world is composed out of different constituents. Therefore according to their principle it cannot be imagined that the world is the act of God.

I say:

If one accepts this principle, and its consequences, then indeed the answer is difficult. But this principle has only been put forward by the later philosophers of Islam.[2]

Then Ghazali says, on behalf of the philosophers:

The philosophers may say perhaps: The world in its totality does not proceed from God without a mediator; what proceeds from Him is one single existent, and this is the first of the created principles, namely, abstract intellect, that is a substance subsisting by itself, not possessing any volume, knowing itself and knowing its principle, which in the language of the Divine Law is called 'angel'. From it there proceeds a third principle, and from the third a fourth, and through this mediation the existent beings come to be many. The differentiation and multiplicity of the act can proceed either from a differentiation in active powers, in the way that we act differently through the power of passion and through the power of anger; or through a differentiation of matters, as the sun whitens a garment which has been washed, blackens the face of man, melts certain substances and hardens others; or through a differentiation of instruments, as one and the same carpenter saws with a saw, cuts with an axe, bores with an awl;[3] or this multiplication of the act can proceed through mediation, so that the agent does one act, then this act performs another act, and in this way the act multiplies. All these divisions are impossible in the First Principle, because there is no differentiation nor duality, nor multiplicity in His essence, as will be proved in the proofs of His unity.

174 And there is here neither a differentiation of matters—and the very discussion refers to the first effect, which is, for example, primary matter, nor a differentiation of the instrument, for there is no existent on the same level as God—and the very discussion refers to the coming into existence of the first instrument. The only conclusion possible is that the multiplicity which is in the world proceeds from God through mediation, as has been stated previously.[4]

I say:

This amounts to saying that from the One, if He is simple, there

can proceed only one. And the act of the agent can only be differentiated and multiplied either through matters (but there are no matters where He is concerned), or through an instrument (but there is no instrument with Him). The only conclusion therefore is that this happens through mediation, so that first the unit proceeds from Him, and from this unit another, and from this again another, and that it is in this way that plurality comes into existence.

Then Ghazali denies this, and says:

We answer: The consequence of this would be that there is nothing in the world composed of units, but that everything that exists is simple and one, and each unit is the effect of a superior unit and the cause of an inferior, till the series ends in an effect which has no further effect, just as the ascending series ends in a cause which has no other cause. But in reality it is not like this, for, according to the philosophers, body is composed of form and *hyle*, and through this conjunction there arises one single thing; and man is composed out of body and soul and body does not arise out of soul, nor soul out of body: they exist together through another cause. The sphere, too, is, according to them, like this, for it is a body possessing a soul and the soul does not come to be through the body, nor the body through the soul; no, both proceed from another cause. How do these compounds, then, come into existence? Through one single cause? But then their principle that out of the one only one arises is false. Or through a compound cause? But then the question can be repeated in the case of this cause, till one necessarily arrives at a point where the compound and the simple meet. For the First Principle is simple and the rest are compound, and this can only be imagined through their contact.[1] But wherever this contact takes place, this principle, that out of the one only one proceeds, is false.

I say:

This consequence, that everything which exists is simple, is a necessary consequence for the philosophers, if they assume that the First Agent is like a simple agent in the empirical world. But this consequence is binding only upon the man who applies this principle universally to everything that exists.[2] But the man who divides existents into abstract existents and material, sensible existents, makes the principles to which the sensible existent ascends different from the principles to which the intelligible existent ascends, for he regards as the principles of the sensible existents matter and form, and he makes some of these existents the agents of others, till the heavenly body is reached, and he makes the intelligible substances ascend to a first principle which is a principle to them, in one way analogous to

a formal cause, in another analogous to a final cause, and in a third
176 way analogous to an efficient cause. All this has been proved in the works of the philosophers, and we state* this proposition here only in a general way. Therefore these difficulties do not touch them. And this is the theory of Aristotle.[1]

About this statement—that out of the one only one proceeds—all ancient philosophers were agreed,[2] when they investigated the first principle of the world in a dialectical way (they mistook this investigation, however, for a real demonstration), and they all came to the conclusion that the first principle is one and the same for everything, and that from the one only one can proceed. Those two principles having been established, they started to examine where multiplicity comes from. For they had already come to the conclusion that the older theory was untenable. This theory held that the first principles are two, one for the good, one for the bad; for those older philosophers did not think that the principles of the opposites could be one and the same; they believed that the most general opposites which comprehend all opposites are the good and the bad, and held therefore that the first principles must be two.[3] When, however, after a close examination, it was discovered that all things tend to one end, and this end is the order which exists in the world, as it exists in an
177 army through its leader, and as it exists in cities through their government,[4] they came to the conclusion that the world must have one highest principle; and this is the sense of the Holy Words 'If there were in heaven and earth gods beside God, both would surely have been corrupted'.[5] They believed therefore, because of the good which is present in everything, that evil occurs only in an accidental way,[6] like the punishments which good governors of cities ordain; for they are evils instituted for the sake of the good, not by primary intention.[7] For there exist amongst good things some that can only exist with an admixture of evil, for instance, in the being of man who is composed of a rational and an animal soul. Divine Wisdom has ordained, according to these philosophers, that a great quantity of the good should exist, although it had to be mixed with a small quantity of evil, for the existence of much good with a little evil is preferable to the non-existence of much good because of a little evil.[8]

Since therefore these later philosophers were convinced that the first principle must of necessity be one and unique, and this difficulty about the one occurred, they gave three answers to this question. Some, like Anaxagoras and his school, believe that plurality is only introduced

through matter,[1] some believe that plurality is introduced through the instruments, and some believe that plurality comes only through the mediators; and the first who assumed this was Plato.[2] This is the most convincing answer, for in the case of both the other solutions one would have to ask again; from where does the plurality come in the matters and in the instruments? But this difficulty touches anyone* who acknowledges that from the one only one can proceed: he has to explain how plurality can derive from the one. Nowadays, however, the contrary of this theory, namely, that out of the one all things proceed by one first emanation, is generally accepted, and with our contemporaries we need discuss only this latter statement.[3]

178

The objection which Ghazali raises against the Peripatetics, that, if plurality were introduced through mediators, there could only arise a plurality of qualitatively undifferentiated agglomerates which could only form a quantitative plurality, does not touch them. For the Peripatetics hold that there exists a twofold plurality, the plurality of simple beings, those beings namely that do not exist in matter, and that some of these are the causes of others and that they all ascend to one unique cause which is of their own genus, and is the first being of their genus, and that the plurality of the heavenly bodies only arises from the plurality of these principles; and that the plurality of the sublunary world comes only from matter and form and the heavenly bodies.[4] So the Peripatetics are not touched by this difficulty. The heavenly bodies are moved primarily through their movers, which are absolutely immaterial, and the forms of these heavenly bodies are acquired from these movers and the forms in the sublunary world are acquired from the heavenly bodies and also from each other, indifferently, whether they are forms of the elements which are in imperishable prime matter[5] or forms of bodies composed out of the elements, and, indeed, the composition in this sublunary world arises out of the heavenly bodies.[6] This is their theory of the order which exists in the world. The reasons which led the philosophers to this theory cannot be explained here, since they built it on many principles and propositions, which are proved in many sciences and through many sciences in a systematic way. But when the philosophers of our religion, like Farabi and Avicenna, had once conceded to their opponents that the agent in the divine world is like the agent in the empirical, and that from the one agent there can arise but one object (and according to all the First was an absolutely simple unity), it became difficult for them to explain how plurality could arise from it. This difficulty

179

compelled them finally to regard the First as different from the mover of the daily circular movement; they declared that from the First, who is a simple existent, the mover of the highest sphere proceeds, and from this mover, since he is of a composite nature, as
180 he is both conscious of himself and conscious of the First, a duality, the highest sphere, and the mover of the second sphere, the sphere under the highest can arise. This, however, is a mistake,[1] according to philosophical teaching, for thinker and thought are one identical thing in human intellect and this is still more true in the case of the abstract intellects.[2] This does not affect Aristotle's theory, for the individual agent in the empirical world, from which there can
5 only proceed one single act, can only in an equivocal way be compared to the first agent.[3] For the first agent in the divine world is an absolute agent, while the agent in the empirical world is a relative agent, and from the absolute agent only an absolute act which has no special individual object can proceed. And thereby Aristotle proves that the agent of the human intelligibles is an intellect free from matter, since this agent thinks all things,[4] and in the
10 same way he proves that the passive intellect is ingenerable and incorruptible,[5] because this intellect also thinks all things.

According to the system of Aristotle the answer on this point is that everything whose existence is only effected through a conjunction of parts, like the conjunction of matter and form, or the conjunction of the elements of the world, receives its existence as a consequence of this conjunction. The bestower of this conjunction is, therefore, the
181 bestower of existence. And since everything conjoined is only conjoined through a unity in it, and this unity through which it is conjoined must depend on a unity, subsistent by itself, and be related to it, there must exist a single unity, subsistent by itself, and this unity must of necessity provide unity through its own essence.[6] This unity is distributed in the different classes of existing things, according
5 to their natures, and from this unity, allotted to the individual things, their existence arises; and all those unities lead upwards to the First Monad, as warmth which exists in all the individual warm things proceeds from primal warmth, which is fire, and leads upwards to it.[7] By means of this theory Aristotle connects sensible existence with intelligible, saying that the world is one and proceeds from one,
10 and that this Monad is partly the cause of unity, partly the cause of plurality. And since Aristotle was the first to find this solution, and because of its difficulty, many of the later philosophers did not

understand it, as we have shown. It is evident, therefore, that there is a unique entity from which a single power emanates through which all beings exist. And since they are many, it is necessarily from the Monad, in so far as it is one, that plurality arises or proceeds or whatever term is to be used.[1] This is the sense of Aristotle's theory, a 182
sense very different from that in which those thinkers believe who affirm that from the one only one can proceed. See therefore how serious this error proved among the philosophers! You should, therefore, see for youself in the books of the ancients whether these philosophical theories are proved, not in the works of Avicenna and others who changed the philosophical doctrine in its treatment of meta- 5
physics so much that it became mere guessing.

Ghazali says, on behalf of the philosophers:

It may be said: If the philosophical theory is properly understood, the difficulties disappear. Existents can be divided into what exists in a substratum, like accidents and forms, and what does not exist in a substratum. The latter can be divided again into what serves as a substratum for other things, e.g. bodies, and what does not exist in a substratum, e.g. substances which subsist by themselves. These latter again are divided into those which exert an influence on bodies and which we call souls, and those 10
which exert an influence not on bodies but on souls, and which we call abstract intellects. Existents which inhere in a substratum, like accidents, are temporal and have temporal causes which terminate in a principle, in one way temporal, in another way everlasting, namely, circular movement. But we are not discussing this here. Here we are discussing only those principles which exist by themselves and do not inhere in a substratum, which are of three kinds: (1) bodies, which are the lowest type, (2) abstract intellects, which are not attached to bodies, either by way of action or by being impressed upon them, which are the highest type, and (3) souls, which are the intermediate agencies, attached to the bodies in a certain way, namely, through their influence and their action upon them, and which stand midway in dignity; they undergo an influence from the intellects and exert an influence upon the bodies.

Now the number of bodies is ten. There are nine heavens, and the tenth body is the matter which fills the concavity of the sphere of the moon.[2] 183
The nine heavens are animated; they possess bodies and souls, and they have an order in existence which we shall mention here. From the existence of the First Principle there emanates the first intellect—an existent which subsists by itself, immaterial, not impressed on body, conscious of its principle and which we philosophers call First Intellect,[3] but which (for we do not quibble about words) may be called angel, or intellect, or what you will. From its existence there derive three things, an intellect, the soul, 5
and the body of the farthest sphere, i.e. the ninth heaven.[4] Then from the

second intellect there derive a third intellect and the soul and the body of the sphere of the fixed stars, then from the third intellect there derive a fourth intellect and the soul and the body of the sphere of Saturn, then from the fourth intellect there derive a fifth intellect and the soul and the body of the sphere of Jupiter, and so on till one arrives at the intellect from which there derive the intellect, the soul and the body of the sphere of the moon, and this last intellect is that which is called the active intellect. Then there follows that which fills the sphere of the moon, namely, the matter which receives generation and corruption from the active intellect and from the natures of the spheres. Then through the
10 action of the movements of the spheres and the stars the matters are mixed in different mixtures from which the minerals, vegetables, and animals arise. It is not necessary that from each intellect another intellect should derive endlessly, for these intellects are of a different kind, and what is valid for the one is not valid for the other.[1] It follows from this that the intellects after the First Principle are ten in number and that there are nine spheres, and the sum of these noble principles after the First Principle is therefore nineteen; and that under each of the primary intellects there are three things, another intellect and a soul and body of a sphere. Therefore there must be in each intellect a triple character, and in the first effect a plurality can only be imagined in this way: (1) it is conscious of its principle, (2) it is conscious of itself, (3) it is in itself possible, since the necessity of its existence derives from another. These are three conditions, and the most noble of these three effects must be related to the most noble of these conditions.[2] Therefore the intellect proceeds from the first effect[3] in so far as the first effect is conscious of its principle; the soul of the sphere proceeds from the first effect, in so far as the first effect is conscious of itself; and the body of the sphere proceeds from the first effect, in so far as by itself the first effect belongs to possible existence. We must still explain why this triple character is found in the first effect, although its principle is only one. We say that from the First Principle only one thing proceeds, namely, the essence of this intellect through which it is conscious of itself. The effect, however, must by itself become conscious of its principle, and this kind of consciousness cannot derive from its cause. Also the effect by itself belongs to possible existence, and
184 cannot receive this possibility from the First Principle, but possesses it in its own essence. We do indeed regard it as possible that one effect should proceed from the one, although this effect possesses by itself and not through its principle certain necessary qualities, either relative or non-relative.[4] In this way a plurality arises, and so it becomes the principle of the existence of plurality. Thus the composite can meet the simple, as their meeting must needs take place and cannot take place in any other
5 manner, and this is the right and reasonable explanation, and it is in this way that this philosophical theory must be understood.[5]

I say:

All these are inventions fabricated against the philosophers by Avicenna, Farabi, and others. But the true theory of the ancient philosophers is that there are principles which are the celestial bodies, and that the principles of the celestial bodies, which are immaterial existents, are the movers of those celestial bodies, and that the celestial bodies move towards them in obedience to them and out of love for them, to comply with their order to move and to understand them, and that they are only created with a view to movement. For when it was found that the principles which move the celestial bodies are immaterial and incorporeal, there was no way left to them in which they might move the bodies other than by ordering them to move. And from this the philosophers concluded that the celestial bodies are rational animals, conscious of themselves and of their 185
principles, which move them by command.[1] And since it was established—in the *De Anima*—that there is no difference between knowledge and the object of knowledge, except for the latter's being in matter,[2] of necessity the substance of immaterial beings—if there are such —had to be knowledge or intellect or whatever you wish to call it. And the philosophers knew that these principles must be immaterial, because they confer on the celestial bodies everlasting movement in which there is no fatigue or weariness,[3] and that anything which bestows such an everlasting movement must be immaterial, and cannot be a material power. And indeed the celestial body acquires its permanence only through these immaterial principles. And the philosophers understood that the existence of these immaterial principles must be connected with a first principle amongst them; if not, there could be no order in the world. You can find these theories in the books of the philosophers and, if you want to make sure of the truth in these matters, you will have to consult them. It also becomes clear from the fact that all the spheres have the daily circular movement, although besides this movement they have, as the philosophers had ascertained, their own special movements, that He who commands this movement must be the First Principle, i.e. God, and that He commands the other principles to order the other movements to the other spheres. Through this heaven and earth are ruled as a state is ruled by the commands of the supreme monarch, which, however, are transmitted to all classes of the population by the men he has 186
appointed for this purpose in the different affairs of the state. As it says in the Koran: 'And He inspired every Heaven with its bidding.'[4]

This heavenly injunction and this obedience are the prototypes of the injunction and obedience imposed on man because he is a rational animal.[1] What Avicenna says of the derivation of these principles from each other is a theory not known amongst the ancients, who merely state that these principles hold certain positions[2] in relation to the First Principle, and that their existence is only made real through this relation to the First Principle. As is said in the Koran: 'There is none amongst us but has his appointed place.'[3] It is the connexion[4] which exists between them which brings it about that some are the effect of others and that they all depend on the First Principle. By 'agent' and 'object', 'creator' and 'creature', in so far as it concerns this existence nothing more can be understood than just this idea of connexion. But what we said of this connexion of every existent with the One is something different from what is meant by 'agent' and 'object', 'maker' and 'product' in this sublunary world. If you imagine a ruler who has many men under his command who again have others under their command, and if you imagine that those commanded receive their existence only through receiving this command and through their obedience to this command, and those who are under those commanded can only exist through those commanded, of necessity the first ruler will be the one who bestows on
187 all existents the characteristic through which they become existent, and that which exists through its being commanded will only exist because of the first ruler. And the philosophers understood that this is what is meant by the divine laws when they speak of creation, of calling into existence out of nothing, and of command. This is the best way to teach people to understand the philosophical doctrine without the ignominy attaching to it, which seems to attach when you listen to the analysis Ghazali gives of it here. The philosophers assert that all this is proved in their books, and the man who, having fulfilled the conditions they impose,[5] is able to study their works will find the truth of what they say—or perhaps its opposite—and will not understand Aristotle's theory or Plato's in any other sense than that here indicated. And their philosophy is the highest point human intelligence can reach. It may be that, when a man discovers these explanations of philosophical theory, he will find that they happen not only to be true but to be generally acknowledged, and teachings which are generally acceptable are pleasing and delightful to all.[6]

One of the premisses from which this explanation is deduced is that when one observes this sublunary world, one finds that what is

called 'living' and 'knowing' moves on its own account in well-defined movements towards well-defined ends and well-defined acts from which new well-defined acts arise. For this reason the theologians say that any act can only proceed from a living, knowing being. 188
When one has found this first premiss, that what moves in well-defined movements from which arise well-defined and ordered actions is living and knowing, and one joins to this a second premiss which can be verified by the senses, that the heavens move on their own account in well-defined movements from which there follow in the existents under them well-defined acts, order, and rank through which these existents under them receive their subsistence, one deduces from this, no doubt, a third principle, namely, that the heavenly bodies are living beings endowed with perception.[1] That from their movements there follow well-defined acts from which this sublunary world, its animals, vegetables, and minerals receive their subsistence and conservation,[2] is evident from observation, for, were it not that the sun in its ecliptic[3] approaches the sublunary world and recedes from it, there would not be the four seasons, and without the four seasons there would be no plants and no animals, and the orderly origination of elements out of each other necessary for the conservation of their existence would not take place. For instance, when the sun recedes towards the south the air in the north becomes cold and rains occur and the production of the watery element increases, whereas in the south the production of the airy element becomes greater; whereas in summer, when the sun approaches our zenith, 189
the opposite takes place.[4] Those actions which the sun exercises everlastingly through its varying distance from the different existents which always occupy one and the same place are also found in the moon and all the stars which have oblique spheres, and they produce the four seasons through their circular movements, and the most important of all these movements, in its necessity for the existence and conservation of the creation, is the highest circular movement which produces day and night. The Venerable Book refers in several verses to the providential care for man which arises out of God's subjection of all the heavens to His bidding, as, for instance, in the Koranic verse 'And the sun and the moon and the stars are subjected to His bidding',[5] and when man observes these acts and this guidance which proceed necessarily and permanently from the movements of the stars, and sees how these stars move in fixed movements, and that they have well-defined shapes and move in well-defined direc-

tions towards well-defined actions in opposite motions, he understands that these well-defined acts can only arise from beings perceptive, living, capable of choice and of willing.

And he becomes still more convinced of this when he sees that many beings in this world which have small, despicable, miserable, and insignificant bodies are not wholly devoid of life, notwithstanding the smallness of their size, the feebleness of their powers, the shortness of their lives, the insignificance of their bodies; and that divine munificence has bestowed on them life and perception, through which they direct themselves and conserve their existence. And he knows with absolute certainty that the heavenly bodies are better fitted to possess life and perception than the bodies of this sublunary world, because of the size of their bodies, the magnificence of their existence, and the multitude of their lights,[1] as it says in the Divine Words: 'Surely the creation of the heavens and the earth is greater than the creation of man, but most men know it not.'[2] But especially when he notices how they direct the living beings of this sublunary world, does he understand with absolute certainty that they are alive, for the living can only be guided by a being leading a more perfect life.[3] And when man observes these noble, living, rational bodies, capable of choice, which surround us, and recognizes a third principle, namely, that they do not need for their own existence the providence with which they guide the sublunary world,[4] he becomes aware that they are commanded to perform these movements and to control the animals, vegetables, and minerals of this sublunary world, and that He who commands them is not one of them and that He is necessarily incorporeal (for, if not, He would be one of them) and that all these heavenly bodies control the existents which are under them, but serve Him, who for His existence is in no need of them. And were it not for this Commander, they would not give their care everlastingly and continuously to this sublunary world which they guide willingly, without any advantage to themselves, especially in this act. They move* thus by way of command and obligation the heavens which repair to them, only in order to conserve this sublunary world and to uphold its existence. And the Commander is God (glory be to Him), and all this is the meaning of the Divine Words 'We come willingly'.[5]

And another proof of all this is that, if a man sees a great many people, distinguished and meritorious, applying themselves to definite acts without a moment's interruption, although these acts are

not necessary for their own existence and they do not need them, it is absolutely evident to him that these acts have been prescribed and ordered to them and that they have a leader who has obliged them in his everlasting service to act continually for the good of others.[1] This leader is the highest among them in power and rank and they are, as it were, his submissive slaves. And this is the meaning to which the Venerable Book refers in the words: 'Thus did we show Abraham the kingdom of heaven and the earth that he should be of those who are safe.'[2] And when man observes still another thing, namely, that all the seven planets in their own special movements are subservient to their universal daily motion and that their own bodies as parts of the whole are submissive to the universal body, as if they were all one in fulfilling this service, he knows again with absolute certainty that each planet has its own commanding principle, supervising it as a deputy of the first Commander. Just as, in the organization of armies, 192
where each body of troops has one commander, called a centurion, each centurion is subordinate to the one Commander-in-chief of the army, so also in regard to the movements of the heavenly bodies which the ancients observed. They number somewhat more than forty, of which seven or eight[3]—for the ancients disagreed about this —dominate the others and themselves depend on the first Commander, praise be to Him! Man acquires this knowledge in this way, whether or not he knows how the principle of the creation of these heavenly bodies acts, or what the connexion is between the existence of these commanders and the first Commander. In any case he does not doubt that, if these heavenly bodies existed by themselves, that is, if they were eternal and had no cause, they might refuse to serve their own commanders or might not obey them, and the commanders might refuse to obey the first Commander. But, since it is not possible for them to behave in this way, the relation between them and the first Commander is determined by absolute obedience, and this means nothing more than that they possess this obedience in the essence of their being, not accidentally, as is the case in the relation between master and servant.[4] Servitude, therefore, is not something additional to their essence, but these essences subsist through servitude and this is the meaning of the Divine Words: 'There is none in 193
the heavens or the earth but comes to the Merciful as a servant.'[5] And their possession is the kingdom of the heavens and the earth which God showed to Abraham, as it is expressed in the Devine Words: 'Thus did we show Abraham the kingdom of heaven and

earth that he should be of those who are safe.'[1] Therefore you will understand that the creation of these bodies and the principle of their becoming cannot be like the coming to be of the bodies of this sublunary world, and that the human intellect is too weak to understand how this act works, although it knows that this act exists. He who tries to compare heavenly with earthly existence, and believes that the Agent of the divine world acts in the way in which an agent in this sublunary world works, is utterly thoughtless, profoundly mistaken, and in complete error.

This is the extreme limit we can reach in our understanding of the theories of the ancients about the heavenly bodies, of their proof for the existence of a Creator for these bodies who is immaterial, and of their statements concerning the immaterial existents under Him, one of which is the soul. But to believe in His existence as if He were the cause through which these bodies had been produced in time, in the way we see the production of the bodies of this sublunary world, as the theologians desired—this, indeed, is very difficult, and the
194 premisses they use for its proof do not lead them where they desire. We shall show this later, when we discuss the different proofs for the existence of God.

And since this has been firmly established, we shall now go back to relate and refute in detail what Ghazali tells of the philosophers, and to show the degree of truth reached by his assertions, for this is the primary intention of this book.

Ghazali says, refuting the philosophers:

> What you affirm are only suppositions and in fact you do nothing but add obscurities to obscurities. If a man were to say that he had seen such things in a dream, it would be a proof of his bad constitution, or if one should advance such arguments in juridical controversies, in which everything under discussion is conjectural, one would say these were stupidities which could not command any assent.

I say:

This is very much the way the ignorant treat the learned and the vulgar the eminent, and in this way, too, the common people behave towards the products of craftsmanship. For, when the artisans show the common people the products of their craftsmanship which possess many qualities from which they draw wonderful actions, the masses scoff* at them and regard them as insane, whereas in reality they
195 themselves are insane and ignorant in comparison with the wise.[2] With such utterances as these the learned and the thoughtful need

not occupy themselves. What Ghazali ought to have done, since he relates these theories, is to show the motives which led to them, so that the reader might compare them with the arguments through which he wants to refute them.

Ghazali says:

The ways of refuting such theories are countless, but we shall bring here a certain number. The first is that we say: You claim that one of the meanings of plurality in the first effect is that it is possible in its existence, but we ask whether its being possible in its existence is identical with its being or something different? If you say 'identical', then no plurality proceeds from it, but if you say that it is different, why then do you not assert that there is a plurality in the First Principle, for it not only has existence, but is necessary in its existence, and existence and necessary existence are not identical. Therefore, because of this plurality in the First Principle, let us allow that different entities proceed from it. If it is said: 'Necessity of existence cannot mean anything but existence', we answer: 'Possibility of existence cannot mean anything but existence.' If, however, you say: 'Its existence can be known without its possibility being known, and therefore they are different,' we answer: 'In the same way the existence of the necessary existent can be known without its necessity being known, unless another proof is added,[1] let them therefore be different! Generally speaking, existence is a universal which can be divided into necessary and possible, and if the one specific difference is an addition to the universal, the other specific difference is also an addition, for both cases are the same.' If you say, 'It possesses the possibility of its existence 196 through itself and its existence through another, how then can what it possesses through itself and what it possesses through another be identical?' we answer: 'How then can the necessity of its being be identical with its being, so that the necessity of its existence can be denied and its existence affirmed? And to God, the One, the Absolute Truth, negation and affirmation cannot be applied equivocally, for one cannot say of Him that He is and is not, or that His existence is at the same time necessary or not necessary; but it can be said of Him that He exists, but that His existence is not necessary, as it can be said of Him that He exists, but that His existence is not possible. And it is through this that His Unity can be recognized. But this unity in the First cannot be upheld*, if what you say is true, that possibility of existence is something different from the possible existent*.'[2]

I say:

Ghazali affirms that, when we say of a thing that it is possible in its existence, this must either mean that it is identical with its existence or different from it, i.e. something additional to its existence. If it is identical, there is no plurality, and the statement of the

philosophers that there is a plurality in the possible existent has no sense. If, however, it is not identical, the philosophers will have to make the same admission about the necessary existent, i.e. that there is a plurality in it, but this is in contradiction to their own principle. This reasoning, however, is not valid, for Ghazali has overlooked a third case, namely, that necessity of being might be not something added to existence outside the soul but a condition[1] in the necessary existent which adds nothing to its essence; it might be said to refer to the denial of its being the effect of something else, a denial of that which is affirmed of all other entities,[2] just as, when we say of some-
197 thing that it is one, nothing additional to its essence existing outside the soul is meant—as is, on the contrary, the case when we speak of a white existent—but only a negative condition, namely, indivisibility.[3] In the same way, when we speak of the necessary existent, we mean by the necessity of His existence a negative condition which is the consequence of His existence, namely, that His existence is necessary through Himself, not through something else. And also
5 when we speak of the existent which is possible through itself, it is not something additional to its essence outside the soul—as is the case with the real possible[4]—that should be understood, but merely that its essence determines that its existence can become necessary only through a cause; what is meant, therefore, is an essence which will not be by itself necessary in its existence when its cause is removed and therefore is not a necessary existent, i.e. it is denied the quality of necessary existence.[5] It is as if Ghazali said that the neces-
10 sary existent is partially necessary through itself, partially through a cause, and that which is necessary through a cause is not necessary through itself.[6] Nobody doubts that these specific differences are neither substantial differences which divide the essence nor additions to the essence, but that they are only negative or relative relations, just as, when we say that a thing exists, the word 'exists' does not indicate an entity added to its essence outside the soul, which is the case when we say of a thing that it is white.[7] It is here that Avicenna erred, for he believed that unity is an addition to the essence and also that existence, when we say that a thing exists, is an addition to the
198 thing.[8] This question will be treated later. And the first to develop this theory of the existent, possible by itself and necessary through another, was Avicenna;[9] for him possibility was a quality in a thing, different from the thing in which the possibility is, and from this it seems to follow that what is under the First is composed of two things,

one to which possibility is attributed, the other to which necessity is attributed; but this is a mistaken theory.[1] But he who has understood our explanation will not be concerned about the difficulty which Ghazali adduces against Avicenna. The only question he will have to ask, when he has understood the meaning of 'possibility of existence' for the first effect, is whether this possibility brings about a compound character in the first effect or not, for if the quality is relative, it does not bring about a compound character. For not all the different dispositions which can be imagined in a thing need determine additional qualities in its essence outside the soul; indeed, this is the case with the disposition of privations and relations, and for this reason certain philosophers do not count the category of relation among things which exist outside the soul, i.e. the ten categories.[2] Ghazali, however, implies in his argument that any additional meaning must apply to an additional entity actually outside the soul; but this is a mistake, and a sophistical argument.[3] This follows from his words:

> Generally speaking, existence is a universal which can be divided into necessary and possible, and if the one specific difference is an addition to the universal, the other specific difference also is an addition, for both cases are the same.

But the division of existence into possible and necessary is not like 199
the division of animal into rational and irrational, or into walking, swimming, and flying animals, for those things are additional to the genus and provide additional species—animality is their common concept and they are specific differences added to it. But the possible into which Avicenna divides existence is not an entity actually outside the soul, and his theory is wrong, as we said before. For the existence which for its existence is in need of a cause can, as an entity by itself, only be understood as non-existence—that is to say, anything that exists through another thing must be non-existent by itself, unless its nature is the nature of the true possible.[4] Therefore the division of existence into necessary and possible existence is not a valid one, if one does not mean by 'possible' the true possible; but we will treat of this later. The summary of what we said here is that the existent can be divided either into essential differences or into relative conditions or into accidents additional to its essence; out of the division into essential differences there must necessarily result a plurality of acts which arise out of the existent, but out of the division into relational and accidental dispositions no such plurality of

different acts results. And if it should be claimed that out of relational qualities a plurality of acts results, well then, a plurality will proceed from the First Principle of necessity without need of the intervention
200 of an effect as the principle of plurality; on the other hand, if it should be claimed that out of relational qualities no plurality of acts results, well then, out of the relational qualities of the first effect also there will result no plurality of acts, and this latter assumption is the better.[1]

Ghazali says:

How then can what it possesses through itself, and what it possesses through another, be identical?

5 But how can this same man who affirms that possibility exists only in the mind, say such a thing? Why then does he not apply this doctrine here, for it is not impossible for the one essence to be positive and negative in its relations without there resulting a plurality in this essence—which, however, Ghazali denies. But if you have understood this, you will be able to solve the problem Ghazali poses in this section.

10 If it is said: 'It follows from this that there is no composition, either in existence, necessary by itself, or in existence, necessary through another,' we answer: As to what is necessary through another, the mind perceives in it a composition through cause and effect; if it is a body*, there must be in it both a unity actually, and a plurality potentially;[2] if it is, however, incorporeal, the mind does not perceive a plurality either in act or in potency*.[3] For this reason the philosophers call this kind of existent simple, but they regard the cause as
201 more simple than the effect and they hold that the First is the most simple[4] of them all, because it cannot be understood as having any cause or effect at all. But composition can be understood of the principles which come after the First; therefore, according to the philosophers, the second principle is more simple than the third, and it is in this way that their theory must be understood. The meaning of 'cause' and 'effect' in these existents is that a potential plurality (as
5 it were) exists in them which shows itself in the effect, i.e. there proceeds out of it a plurality of effects which it never contains actually in any definite moment.[5] If the hearer has understood their theory in this way and accepted it, he will see that they are not affected by the objections of Ghazali. But one should not understand this theory in the way Ghazali does, namely, that out of the second principle, because it knows its own essence and knows its principle, and there-

fore possesses two forms or a dual existence, there proceed two different things, for this is a false theory. For this would mean that this second principle is composed of more than one form and that therefore this form[1] is one in its substratum, many by its definition, as is the case with the soul.[2] But the theologians keep tenaciously to this false explanation in their statements about the derivation of these principles from each other, as if they wanted to understand the divine through an analogy with perceptible acts; indeed, when metaphysics contains such theories, it becomes more conjectural than jurisprudence. You will have seen from this that the conclusion Ghazali wants the philosophers to draw concerning the plurality in the necessary existent, because of the plurality which he considers must exist in the possible existent, has no validity. For, if possibility were understood as real possibility, it would indeed imply here a plurality, but since this is impossible, according to what we have said and shall show later, nothing similar follows concerning the necessary existent. But if possibility is understood as being a concept of the mind, it follows that neither the necessary existent nor the possible existent must be regarded as composite for this reason; the only reason why composition must be admitted here is because of the relation of cause and effect.

Ghazali says:

The second objection is that we say: 'Is the knowledge the first effect has of its principle identical with its own existence and with the knowledge it has of itself?' If so, there is only a plurality in the expression used to describe the essence, not in the essence itself; if not, this plurality will exist also in the First, for He knows Himself and He knows others.

I say:

What is true is that the knowledge the first effect has of its principle is identical with its own essence and that the first effect belongs to the domain of relation and is therefore of a lesser rank than the First who belongs to the domain of what exists by itself. It is true, according to the philosophers, that the First thinks only His own essence—not something relative, namely, that He is a principle—but His essence, according to the philosophers, contains all intellects, nay, all existents, in a nobler and more perfect way than they all possess in reality, as we shall explain later.[3] Therefore this theory does not imply the abominable consequences he ascribes to it.[4]

Ghazali says:

It may be said by the philosophers that His knowing Himself is identical

with His essence, and that he who does not know that he is a principle for others does not know his own essence, for knowledge conforms to the thing known and refers therefore to His essence.

I say:

This statement is wrong, for His being a principle is something relative and cannot be identical with His essence. If He could think that He is a principle, He would be conscious of the things the principle of which He is, in the way these things really exist, and in this case the higher would be perfected through the lower, for the thing known is the perfection of the knower according to the philosophers, as is set forth in the sciences about the human intellect.[1]

Ghazali says:

But we answer: In this case the knowledge the effect has of itself is identical with its essence, for it thinks with its substance and knows itself, and intellect and knower and thing known are all one. Therefore, if its knowing itself is identical with its essence, well then, let it think itself as the effect of a cause, for this it really is. But the intellect conforms to the thing known; therefore all this refers solely to its essence and so there is no plurality. If, indeed, there is a plurality, it must exist in the First. Therefore, let differentiation proceed from the First.

I say:

What he says here of the philosophers, about the exclusive existence of a plurality in the principles under the First Principle, is wrong and does not follow from their principles. There is, according to them, no plurality in these intellects, and they do not distinguish themselves
204 by simplicity[2] and plurality, but only by being cause and effect. And the difference between the knowledge of the First Principle, as knowing itself, and the knowledge of the other principles, as knowing themselves, is that the First Principle thinks itself as existing by itself, not as being related to a cause, whereas the other intellects think themselves as related to their cause and in this way plurality is introduced into them. They need not all have the same degree of simplicity, since they are not of the same rank in relation to the First Principle and none of them is simple in the sense in which the First Principle is simple, because the First Principle is regarded as an existence by itself whereas they are in related existence.

And as to Ghazali's words:

Therefore, if its knowing itself is identical with its essence, well then, let it think itself as the effect of a cause, for this it really is. But the intellect conforms to the thing known, and therefore all this refers solely to its

essence and so there is no plurality. If, indeed, there is a plurality, it must exist in the First Principle.

I say:

It does not follow from the fact that intellect and the thing known are identical in the separate intellects that they are all similar in simplicity, for in this, according to the philosophers, some are superior to others in a greater or lesser degree; absolute simplicity is only found in the First Intellect, and the reason is that the essence of the First Intellect is subsistent by itself, and the other intellects, when they think themselves, are conscious that they subsist by it; if intellect and the intelligible were in each of them of the same degree of unity as in the First Principle, either the essence existing by reason of itself and the essence existing by reason of another would be congruous, or intellect would not conform to the nature of the intelligible thing;[1] which is impossible, according to the philosophers. All these arguments and their answers, as set forth by Ghazali, are dialectical and the only man who can—notwithstanding the deficiency of the human understanding concerning these questions—give a demonstrative argument about them is the man who knows (to begin with) what the intellect is, and the only man who knows what the intellect is is the man who knows what the soul is, and the only man who knows what the soul is is the man who knows what a living being is.[2] There is no sense in discussing these matters in a superficial way and according to the common notions, which do not contain specific knowledge and are not properly related to the problem. To discuss these questions, before knowing what the intellect is, is nothing more than babbling. The Ash'arites, therefore, when they relate the philosophical doctrines, make them extremely hateful and something very different from even the first speculation of man about what exists.

205

Ghazali says:

Let us therefore drop the claim of its absolute unity, if this unity is annulled through plurality of this kind.

I say:

Ghazali means that, when the philosophers assume that the First thinks its own essence and knows through this that it is the cause of others, they must conclude that it is not absolutely one. For it has not yet been proved that God must be absolutely one. This is the theory of some Peripatetics who interpreted it as the theory of Aristotle himself.[3]

206

Ghazali says:

If it is said that the First knows only its own essence, and the knowledge

of its own essence is identical with its essence, for intelligence, thinker, and intelligible are all one and it does not know anything but itself—this can be refuted in two ways. First, because of its worthlessness this theory was abandoned by Avicenna and other philosophers of repute, who affirm that the First knows itself as the principle of what emanates from it and knows all other existents in their species by a universal thought, and not individually. For they repudiate the theory that there emanates out of the First Principle, which does not know what emanates from it, only one intellect; that its effect is an intellect from which there emanates an intellect and the soul and the body of a sphere, and that this intellect knows itself and its three effects, whereas its cause and principle knows only itself. For according to this theory the effect is superior to the cause, since from the cause only one thing emanates, whereas from the effect three things emanate; moreover, the First Principle knows only itself, but the effect knows its principle and effects besides itself. Who can be satisfied with the idea that such words can apply to the status of God, for indeed they make Him lower than any of His creatures, who know themselves and know Him, and he who knows Him and knows himself is of a nobler rank than He is, since He knows none but Himself. Their profound thoughts about God's glory end therefore in a denial of everything that is understood by His greatness, and assimilate the state of God to that of a dead body which has no notion of what happens in the world, with the sole exception that God possesses self-knowledge.[1] So does God deal with those who turn aside from His way and deviate from the path of His guidance, denying His words: 'I did not make them witnesses of the creation of the heavens and the earth nor of the creation of themselves,'[2] who think wicked thoughts about God,[3] who believe that the powers of man suffice to reach the essence of the divine, who, deceived in their minds, believe that the human understanding is competent to free itself from the authority of the prophets and from obedience to them. For no doubt they
207 are now forced to acknowledge that the quintessence of their thought is reduced to absurdities which would make one wonder if they were told in a dream.

I say:

One who wants to enter deeply into these speculations must know that much of what is firmly established in the speculative sciences seems at first sight, and compared to the opinions the common man holds about them, like the visions of a dreamer, as Ghazali truly says; many of these truths are deduced from a different kind of premisses from that which satisfies the masses; indeed there is no other way for anyone to become convinced of their truth than that of comprehending them by logical proof and evidence. If, for example, the common man, and even he who has reached a somewhat higher degree of

culture, is told that the sun, which appears to the eye as being the size of a foot, is about a hundred and seventy times bigger than the earth, he will say that it is absurd, and will regard him who believes it as a dreamer; and it is difficult for us to convince him through propositions which he can easily understand and acknowledge in a short time. The only way, indeed, to attain such knowledge is through deductive proof—that is, for the man who is amenable to proof. If it is the case even with geometrical questions and mathematical problems in general, that, when a solution is explained to 208
the common man, it will appear to him fallacious and open to criticism at first sight and to have the character of a dream, how much more this will be the case in the metaphysical sciences, since for this kind of knowledge there are no plausible premisses which satisfy the superficial understanding, by which I mean the understanding of the masses. One might say that the final knowledge the understanding can reach will seem to the common man at first sight 5
something absurd. And this happens not only in the theoretical sciences but in the practical sciences as well. Therefore, the assumption that one of the sciences should vanish and then come into existence again, at first sight would seem to be impossible.[1] For this reason many have thought that those sciences are of supernatural origin and some attribute them to the Jinn, others to the prophets, so 10
that Ibn Hazm goes so far as to affirm that the strongest proof of the existence of prophecy is the existence of these sciences.[2] Therefore, if a lover of truth finds a theory reprehensible and does not find plausible premisses which remove its reprehensible character, he must not at once believe that the theory is false, but must inquire how he who puts it forward has arrived at it, must employ much time in learning this, and follow the systematic order corresponding to the nature of the topic. And if this is necessary in other sciences than metaphysics, how much more will this hold for metaphysics, since that science is so remote from the sciences built on common 209
sense. Thus it should be learned that in metaphysics rhetorical reasoning cannot be applied, as it may be applied in other questions; for dialectics is useful and permissible in the other sciences but forbidden in this. For this reason most students of this science seek refuge in the theory that metaphysics is wholly concerned with the 5
qualification of the substance[3] which the human mind cannot qualify, for if it could do so, the eternal and the transitory would be on the same level. If this is so, may God judge him who discusses these

questions with common opinions and who argues about God without scientific knowledge. So it is often thought that the philosophers are extremely inefficient in this science, and for this reason Ghazali says that metaphysics is only conjectural.

But in any case* we shall try to show some plausible premisses and true propositions—and we try this only because Ghazali gave such a false representation of this noble science and denied people the possibility of attaining happiness through excellent acts, and God is the inquirer and the reckoner[1]—in order to set out the motives which moved the philosophers to believe these theories about the First Principle and other existents, the limit which the human understanding can reach in this matter, and the doubts which beset these problems; and we shall show all this also in respect to the Muslim theologians and indicate how far their wisdom attained. We hope through this to help the lover of knowledge to find the truth, and to urge him to study the sciences of both parties, hoping also that God may assist him in all this!

We say:

The philosophers tried to acquire knowledge about reality through speculation alone, without relying on the words of anyone who should induce them to acquiesce in them without proof; on the contrary, sometimes through speculation they came into contradiction with the facts as shown by the senses.[2] They discovered that the sublunary world can be divided into two classes, the living and the inanimate, any instance of which only comes into being through something, called form, which is the entity by which it comes into being after having been non-existent; through something, called matter, out of which it comes into being; through something, called the agent, from which it comes into being; and through something, called the end, for the sake of which it comes into being; and so they established that there are four causes. And they found that the form by which a thing comes into being, i.e. the form of the thing generated, is identical with the proximate agent, from which it comes into being, either in species, like the generation of man out of man, or in genus, like the generation of the mule from a horse and a donkey.[3] And since, according to them, the causes do not form an infinite series, they introduced a primary, permanent efficient cause. Some of them believed that the heavenly bodies are this efficient cause,[4] some that it is an abstract principle, connected with the heavenly bodies, some that it is the First Principle, some again that it is a prin-

ciple inferior to it,[1] and these philosophers thought it sufficient to 212
regard the heavens and the principles of the heavenly bodies* as the
cause for the coming into being of the elements,[2] since according to
them they too need an efficient cause. As to the generation of living
beings from each other in the sublunary world, the philosophers had,
because of this faculty of life, to introduce another principle, which
was the bestower of soul and of form, and of the wisdom which is 5
manifested in this world. This is what Galen calls the formative
faculty[3] and some regard it as an abstract principle,[4] some as an
intellect, some as a soul,[5] some as the body of the heavens, and some
as the First. Galen called this potency the demiurge[6] and was in
doubt whether it is God or another principle. This faculty acts in the
generative animals and in plants, and is needed still more in those 10
plants and animals which have an equivocal generation.[7] This was
the point they reached in the examination of the sublunary world.

When they had agreed that the heavens were the principles of the
perceptible bodies, they investigated the heavens also and agreed that
the heavenly bodies are the principles of the changeable perceptible
bodies and of the species in the sublunary world, either by themselves
or in combination with an abstract principle. And from their investi- 213
gation of the heavenly bodies it appeared to them that these do not
come into being in the way that the transitory things of the sublunary
world come into being, for what comes into being, in so far as it
comes into being, is seen to be a part of this perceptible world and its
coming into being is only effected in so far as it is a part of it, for 5
what has come into being has come into being out of something,
through the act of something, by means of something, in time and in
space. And they discovered that the celestial bodies are, as remote
efficient causes, a condition for the coming into being of perceptible
things. If, however, the celestial bodies themselves had come into
being in this way, they would, as a condition of their becoming, have
required prior to them other bodies which would have needed to be
parts of another world, and there would be in this other world bodies 10
like these, and if these bodies had also come into being, they would
have required other celestial bodies before, and so *ad infinitum*.[8] And
since this was established in this way and many others, they were
convinced that the heavenly bodies neither come into being nor are
destroyed in the way that sublunary things come into being and are
destroyed, for 'coming into being' has no other definition or descrip-
tion[9] or explanation or meaning than that which we have laid down

here. Then they found that the celestial bodies have also moving principles by means of which and by the agency of which they are moved. And when they investigated their principles, they found that
214 the moving principles were neither bodies nor potencies in bodies. They are not bodies because they are the first principles of the bodies encircling the world; they are not potencies in bodies, i.e. their bodies are not a condition for their existence (as is the case in this sublunary world with the composite principles in animals), because any potency in a body is, according to the philosophers, finite, since it can be divided through the division of the body[1] and every body which can
5 be divided is generable and corruptible, i.e. composed of matter and form, and the existence of its matter* is a condition for the existence of its form.[2] And again, if the principles of heavenly bodies were like the principles of earthly bodies, the former would be like the latter and would need other bodies prior to them.[3] Thus they were convinced of the existence of incorporeal principles which are not potencies in a body.

10 Moreover, they had already found, concerning the human intellect, that form has two modes of existence, a sensible existence in matter, as in the stone there is the form of the inorganic which exists in the matter outside the soul, and an intelligible existence, namely, perception and intellect, which is separate from matter and exists in the soul.[4] From this they concluded that these absolutely abstract existences are pure intellects, for if what* is separated from another is already intellect, how much better suited to be intellect will some-
215 thing be that is absolutely separate.[5] And so, of necessity, they deduced that the objects of thought of those intellects are the forms of the existents and of the order which exists in the world, as is the case with the human intellect, for the human intellect is nothing other than the perception of the forms of the existents, in so far as
5 they are without matter. They concluded, therefore, that existents have two modes of existence, a sensible existence and an intelligible existence, and that the relation between sensible and intelligible existence is like the relation between the products of art and the arts of the craftsman,[6] and they believed therefore that the heavenly bodies are conscious of these principles and that they can only guide what exists in the sublunary world because they are animated. And when they compared the separate intellects with the human intellect,
10 they found that these intellects are superior to the human intellect, although they have it in common with the human intellect that their

intelligibles are the forms of existents, and that the form of each of these intellects is nothing but the forms and the order of the existents it perceives, in the way that the human intellect is nothing but the forms and the order of the existents it perceives. The difference between these two kinds of intellect is that the forms of the existents are a cause of the human intellect, since it receives its perfection through them, in the way that the existent is brought into being through its form, whereas the intelligibles of these intellects are the 216
cause of the forms of the existents.[1] For the order and arrangement in the existents of this sublunary world are only a consequence and result of the order which exists in these separate intellects; and the order which exists in the intellect which is in us is only a consequence of the order and arrangement which it perceives in the existents, and therefore it is very imperfect, for most of this order and arrangement 5
it does not perceive. If this is true, there are different degrees in the forms of the sensible existents; the lowest is their existence in matters, then their existence in the human intellect is superior to their existence in matters, and their existence in the separate intellects is still superior to their existence in the human intellect. Then again they have in the separate intellects different degrees of superiority of 10
existence, according to the different degrees of superiority in these intellects in themselves.

And again when they investigated the body of the heavens they found that in reality it is one unique body similar to one single animal, and that it has one general movement—which is like the general movement of the animal which moves the whole body of the animal —namely, the daily movement, and they found that the other heavenly bodies and their individual movements were similar to the particular members of a single animal and its particular movements.[2] 217
And they believed, because of this connexion between these bodies, their referring to one body and to one end, and their collaboration in one act—namely, the world in its totality—that they depended on one principle, as happens to different arts which aim at one product and which depend on one primary art. For this reason they believed that these abstract principles depend on a unique abstract principle which 5
is the cause of all of them, that the forms and the order and arrangement in this principle are the noblest existence which the forms, the order, and the arrangement in all reality can possess, that this order and arrangement are the cause of all the orders and arrangements in this sublunary world, and that the intellects reach their different

degrees of superiority in this, according to their lesser or greater dis-
10 tance from this principle. The First amongst all these principles thinks only its own essence and, by thinking its essence, thinks at the same time all existents in the noblest mode of existence and in the noblest order and arrangement. The substance of everything under the First Principle depends on the way in which it thinks the forms, order, and arrangement which exist in the First Intellect; and their greater or lesser superiority consists only in this. They conclude therefore that the inferior cannot think the superior in the way the superior thinks its own essence, nor does the superior think the inferior in the way the inferior thinks its own essence; this means that no one of any
218 pair of existents can be of the same rank as its fellow, since if this were possible they would have become one and would not form a numerical plurality.[1] Because of this they say that the First thinks only its own essence, and that the next principle can think only the First, but cannot think what is under itself, because this is its effect
5 and if it should think its effect, the effect would become a cause. The philosophers believe that the consciousness which the First has of its own essence is the cause of all existents, and that which each of the intellects inferior to it thinks is in part the cause of those existents the creation of which pertains especially to it, in part the cause of its own essence, i.e. the human intellect in its universality.[2]

It is in this way that the doctrine of the philosophers concerning these things and concerning the motives which lead them to these
10 beliefs about the world must be understood. On examination they will not be less convincing than the motives of the theologians of our religion, first the Mu'tazilites and secondly the Ash'arites, which lead them to their view of the First Principle. They believed, namely, that there exists an essence—neither corporeal, nor in a body—which is living, knowing, willing, provided with power, speaking, hearing, and seeing,[3] while the Ash'arites, but not the Mu'tazilites, held besides that this essence is the agent of everything without intermediary[4] and knows them with an infinite knowledge, since the existents themselves are infinite.[5] The Ash'arites denied the existence of
219 causes, and professed that this living, knowing, willing, hearing, seeing, powerful, speaking essence exists in continuous existence connected with everything and in everything. But this assumption may be thought to imply consequences open to criticism, for an essence with qualities as mentioned above must necessarily be of the genus of the soul, for the soul is an essence, incorporeal, living, knowing, pro-

vided with power, willing, hearing, seeing, speaking, and therefore these theologians assumed the principle of reality to be a universal soul, separated from matter in a way they did not understand.[1]

We shall now mention the difficulties which result from this assumption. The most obvious one concerning their theory of the qualities is that there must exist a composite, eternal essence and therefore an eternal compound, which contradicts the Ash'arite theory that every compound is temporal, because it is an accident and every accident is according to them a temporal product.[2] They assumed besides that all existents are possible acts, and they did not believe that there is in them an order, a proportion, and a wisdom which the nature of these existents requires;[3] no, they held that all things could be different from what they are and this applies necessarily also to the intellect;[4] still, they believed that in the products of art, to which they compared the products of nature, there exist order and proportion, and this was called wisdom, and they called the Creator wise.[5] The argument by which they tried to show that there is in the universe something like this principle was that they compared natural acts to acts of will and said that every act, in so far as it is an act, proceeds from an agent endowed with will, power, choice, life, and knowledge, and that the nature of an act, in so far as it is an act, demands this; and they tried to prove the truth of this by arguing that what is not living is inorganic and dead, and, since from the dead there cannot proceed any act, there does not proceed any act from what is not alive. Thus they denied the acts which proceed from natural things and moreover they refused to admit that the living beings which we see in the empirical world have acts; they said that these acts *seem* connected with the living in the empirical world, but their agent is only the living God in the divine world. But the logical conclusion for them would be that there is in the empirical world no life at all, for life is inferred from things in the empirical world, because of their acts;[6] and, further, it would be interesting to know how they arrived at this judgement about the divine world.[7]

The manner in which they established this creator was by assuming that every temporal product must have a cause, but that this cannot go on infinitely, and that therefore of necessity the series must end in an eternal cause; and this is true enough, only it does not follow from this that this eternal principle cannot be body. They need therefore the additional proposition that a body cannot be eternal, but this proposition causes them many difficulties. For it

is not sufficient for them to prove that this world is produced, since it might still be argued that its cause is an eternal body which has none of the accidents, no circular movements, nor anything else, through which—although they themselves admitted an eternal composite being[1]—they proved that the heavens must be produced.[2] Now, having assumed that the heavenly body has been produced, they supposed that this production had taken place in quite a different way from what is understood by production in the empirical world.[3] In the empirical world, namely, things are produced from something, in time and space, and with a definite quality, not in their totality,[4] and in the empirical world there is no production of a body from that which is not a body. Nor did they suppose its agent to act like an agent in the empirical world, for the empirical agent changes one quality in the existent into another; it does not change absolute non-existence into existence—no, it brings the existent into a form and an intelligible quality through which this existent becomes another existent instead of this, different from it in substance, definition, name, and act, as it is expressed in the Divine Words: 'We have created man from [an extract of] clay, then we made him a clot in a sure depository, then we created the clot congealed blood, and we created the congealed blood a morsel, &c.'[5] It is for this reason that
222 the ancient philosophers believed that the absolute existent neither comes into existence nor can be destroyed.

Now, if one concedes to the theologians that the heavens were created in time, they are unable to prove that they are the first of created things, as is the evident meaning of what is said in the Venerable Book in more than one verse, for instance, in the Divine Words, 'Do not those who misbelieve see that the heavens and the earth were both solid, &c.?'[6] and in the words, 'and His throne was upon the water',[7] and in the words, 'then He made for heaven and it was but smoke, &c.'[8] And as concerns this agent, according to the theologians, it creates the matter and the form of that which becomes, if they believe that it has a matter, or it creates the thing in its totality, if they believe it to be simple in the way they believe the atom to be simple;[9] and if this is so, this kind of agent changes either non-existence into existence, namely, when there is generation, that is when the atom, which according to them is the element of the bodies, comes into being; or existence into non-existence, namely, when there is destruction, that is, when the atom is destroyed. But it is clear that an opposite cannot be changed into its opposite, and that

non-existence itself cannot become existence nor warmth itself cold. It is the privation which becomes existent, it is the warm thing which becomes cold and the cold thing which becomes warm, and for this reason the Mu'tazilites say that privation is an entity although they deprive this entity of the attribute of existence before the becoming of the world.[1] And their arguments by which they believe it can be proved that a thing does not come into being from another thing are 223
incorrect. The most plausible of them is their affirmation that, if a thing came into being from another thing, this would imply an infinite regress. The answer is that this is only impossible for production in a straight line, which, indeed, needs an infinite existence in act; but, as to circular production, it is not impossible that, for instance, fire should come from air and air from fire *ad infinitum*, while the sub- 5
stratum is eternal. They support their theory of the temporal production of the universe by saying that that which cannot be devoid of things produced must itself be produced, and the universe, being the substratum of the things that are produced, must therefore be produced. The greatest mistake in this argument, when its premiss is conceded, is that it is a false generalization, for that which cannot be devoid of things produced in the empirical world is a thing produced out of something else, not out of nothing, whereas they 10
assume that the universe is produced out of nothing. Further, this substratum which the philosophers call primary matter cannot be devoid of corporeality according to the philosophers, and, according to the philosophers, absolute corporeality is not produced.[2] Besides, the premiss which affirms that what cannot be devoid of things produced is produced, is only true when the things produced of which it cannot be devoid are individual things, but if the things produced are one generically, they have no initial term; and from whence then should it follow that their substratum must be produced?[3] And since among the theologians the Ash'arites understood this, they added to this proposition another, namely, that it is not possible that infinite generated things (i.e. without initial and final term) should 224
exist, a proposition which the philosophers regard as necessary.[4] Such difficulties follow from the assumption of the theologians, and they are much more numerous than those which can be held against the philosophers.

And again their assumption that the identical agent which is the First Principle is an agent for everything in the world without an intermediary contradicts the evidence of the senses that things act 5

upon other things. Their most convincing argument on this point is that, if the agent were an effect, this would lead to an infinite regress.[1] But this would only follow if the agent were agent only in so far as it is effect, and if what is moved were the mover, in so far as it is moved, but this is not the case; on the contrary the agent is only agent in so far as it is an actual existent, for the non-existent does not produce any effect.[2] What follows from this is not that there are no acting effects,[3] as the theologians thought, but that the acting effects end[4] in an agent which itself is not an effect at all. Further, the impossibility which is the consequence of their deduction is still greater than the impossibility which follows from the premisses from which they draw this conclusion. For if the principle of the existents is an essence, endowed with life, knowledge, power, and will, and if these qualities are additional to its essence and this essence is incorporeal, then the only difference between the soul and this existent is that the soul is in a body and this existent is a soul which is not in a body. But that which has such a quality is necessarily composed of an essence and attributes, and each compound requires of necessity a cause for its being a compound, since a thing can neither be compounded by itself nor produced by itself, for producing, which is an act of the producer, is nothing but the putting together of the product. And, in general, just as for each effect there must be an agent, so for each compound there must be an agent which puts it together, for the putting together is a condition of the existence of the compound.[5] And nothing can be a cause of the condition of its own existence, because this would imply that a thing should be its own cause. Therefore the Mu'tazilites assumed that these attributes in the First Principle refer to its essence and are nothing additional to it, in the way in which this happens with many essential qualities in many existents, like a thing's being existent and one and eternal and so on.[6] This comes nearer to the truth than the theory of the Ash'arites,[7] and the philosophers' theory of the First Principle approaches that of the Mu'tazilites.

We have now mentioned the motives which led these two parties to their theories about the First Principle, and the conclusions which their adversaries can draw from them and hold against them. As concerns the objections against the philosophers, Ghazali has related them in full; we have answered some of them already, and we will answer some of them* later. The difficulties which beset the theologians we have shown in this discussion in detail.

We shall now return to distinguish the degree of conviction and 226
plausibility reached by the different statements which Ghazali makes in this book, as we proposed to do, and we were only compelled to mention the plausible propositions which led the philosophers to their theories about the principles of the universe because they answer the objections which their adversaries, the theologians, adduce against them; on the other hand, we mentioned the difficulties which beset the theologians because it is only right that their arguments on this problem should be known and their views represented, since they are free to use them as they wish. It is right, as Aristotle says, that a man should adduce the arguments of his adversaries as he brings forward his own; that is, he should exert himself to find the arguments of his opponents in the same way as he exerts himself to find the arguments of his own school of thought, and he should accept the same kind of arguments from them as he accepts when he has found the arguments himself.[1]

We say: The objection that the First Principle, if it can think only its own essence, must be ignorant of everything it has created would be only a valid inference if the way it thinks its essence were to exclude all existents absolutely. But the philosophers mean only that the manner in which it thinks its own essence includes the existents in their noblest mode of existence, and that it is the intellect which is the cause of the existents; and that it is not an intellect because it thinks the existents, in so far as they are the cause of its thinking, as is the case with our intellect. The meaning of their words, that it does not 227
think the existents which are under it, is that it does not think them in the way we think them, but that it thinks them in a way no other thinking existent can think them, for if another existent could think them in the way it thinks them, it would participate in the knowledge of God, and God is far too exalted for this.[2] This is a quality which is peculiar to God, and for this reason certain theologians concluded that God, besides the seven qualities which they attribute to Him, has yet another which is peculiar to Him.[3] Therefore His knowledge can be described neither as universal nor as individual, for both the universal and the individual are effects of existents, and the knowledge of both universal and individual is transitory.[4] We shall explain this still better when we discuss the question whether God knows individuals or does not know them, as the philosophers mostly assert when they pose this problem, and we shall explain that the whole problem is absurd in relation to God.[5] This problem as a whole is

based on two necessary points. First, if God thought existents in such a way that they should be the cause of His knowledge, His intellect would necessarily be transitory and the superior would be brought into being through the inferior. Secondly, if His essence did not contain the intelligibles of all things and their order, there would exist a supreme intellect which would not perceive the forms of existents in their order and proportion.[1] And since these two cases are absurd,
228 it follows that when this principle thinks its own essence,* these existents exist in it in a nobler mode than that in which they exist by themselves. And that one and the same existent can have different degrees of existence can be shown from what occurs with colour*.[2] For we find that colour has different degrees of existence,
5 some higher than others; the lowest degree is its existence in matter, a higher degree is its existence in sight, for it exists in such a way that the colour becomes conscious of itself,[3] whereas existence in matter is an inorganic existence without consciousness; further, it has been proved in the science of psychology that colour has also an existence in the imaginative faculty,[4] and this is a superior existence to its existence in the faculty of sight; it has equally been shown that it has an
10 existence in the remembering faculty superior to that in the imaginative faculty,[5] and, finally, it has in the intellect an existence superior to all these existences. Now, in the same way, we are convinced that it has in the essence of the First Knowledge an existence superior to all its other existences, and that this is the highest degree of existence possible.

229 As for what Ghazali mentions concerning the philosophical theory of the order in the emanation of these separate principles and of the number of entities which emanate out of each of them, there is no proof that this really takes place and that this happens exactly in this way; and the form in which Ghazali relates it is therefore not to be found in the works of the ancient philosophers. But these philosophers
5 all agree on the theory that the principles, both separate and non-separate, all emanate from the First Principle, and that through the emanation of this unique power the world in its totality becomes a unity, and that through this power all its parts are connected, so that the universe aims at one act, as happens with the one body of an animal; which, however, has different potencies, members, and acts; and indeed the world is according to the learned one and the same existent* only because of this one power which emanates from the First Principle.[6] And they agree about all this, because according to them

the heavens are like a single animal and the daily movement which is common to all the heavens is like the animal's general movement in space, and the particular movements which the different parts of heaven have are like the particular movements of the members of the animal. And the philosophers had already proved that there is one power in the animal through which it becomes one and through which all the potencies which it possesses tend towards one act, that is, towards the preservation of the animal,[1] and all these potencies are connected with the potency which emanates from the First Principle; and if this were not the case, its parts would disconnect themselves and it would not persist for the twinkling of an eye. If, however, it is necessary that for a single animal there should be a single spiritual potency,[2] permeating all its parts, through which the plurality of potencies and bodies in it becomes unified, so that it can be said of its bodies and potencies that they are one, and if, further, the relations of individual beings to the universe in its totality are like the relation of the parts of an animal to the animal itself,[3] it needs must be the case that all the potencies in the particular parts of this unique animal and in the psychological and intellectual motive powers of these parts should be such that there is in them one single spiritual force which connects all the spiritual and bodily potencies and which permeates the universe in one and the same penetration.[4] If this were not the case, no order and no proportion would exist. And in this way it is true that God is the creator, supporter, and preserver of everything, and to this the Divine Words apply: 'Verily, God supports the heavens and the earth lest they should decline.'[5] And it in no way follows from the fact that this one potency permeates many things that there should be a plurality in it, as those thought who said that from the First Principle there can in the first place emanate only one from which plurality can then emanate; for this statement can only be regarded as valid if the immaterial agent is compared to the material agent. Therefore the term 'agent' can only be applied equivocally to both the immaterial agent and the material. And this will explain to you the possibility of the procession of plurality from the Monad.

Again, the existence of all other separate principles consists only in the forms in which they conceive the First Principle, and it is not impossible that this should be one identical thing, notwithstanding the difference of the forms in which they conceive it, in the same way as it is not impossible that a plurality should be conceived through one and the same form.[6] And we find, indeed, that all the

heavenly bodies in their daily movement, and the sphere of the fixed stars, conceive one identical form[1] and that they all, moving in this daily movement, are moved by one and the same mover, who is the mover of the sphere of the fixed stars; and we find, too, that they have also different particular movements. Therefore it needs must be that their movements proceed partly from different movers, partly—namely through the connexion of their movements with the first sphere—from one unique mover.[2] And just as the removal of an organ or a potency vital to the whole animal would invalidate all the organs and potencies of this animal, so the same applies to heaven with respect to its parts and its moving potencies, and in general with respect to the principles of the world and their parts in relation to the First Principle and in their mutual relations. According to the philosophers the world is closely similar to a single state: a state is upheld through one ruler and many deputies subordinate to
232 him; all the deputies in the state are connected with the first ruler, because the authority of each of them is based on him alone, with respect to the ends and the order of the acts which lead to these ends for the sake of which these deputies exist; and so is the relation of the First Ruler in the world to His deputies. And it is evident to the philosophers that he who bestows on the immaterial existents their end is identical with him who bestows on them[3] their existence, for according to them form and end are identical in this kind of existent[4] and he who bestows on these existents both form and end is their agent. And therefore it is clear that the First Principle is the principle of all these principles, and that He is an agent, a form, and an end.[5] And as to His relation to the sensible existents, He is—since He bestows on them the unity which causes their plurality and the unification of their plurality—the cause of all of them, being their agent, form, and end, and all the existents seek their end by their movement towards Him, and this movement by which they seek their end is the movement for the sake of which they are created, and in so far as this concerns all existents, this movement exists by nature, and in so far as this concerns man, it is voluntary.[6] And therefore man is of all beings the one charged with duty and obligation. And this is the
233 meaning of the Divine Words: 'Verily, we offered the trust to the heavens and the earth and the mountains, but they refused to bear it and shrank from it; but man bore it: verily he is ever unjust and ignorant.'[7]

And the philosophers only assert that, although all these ruling

principles proceed from the First Principle, it is only some of them that do so directly, whereas others, ascending gradually from the lower world to the higher, proceed mediately. For they discovered that certain parts of heaven exist for the sake of the movements of other parts, and they related them in each instance to a first principle, till they finally arrived at the absolutely First Principle; and so it was evident to them that there was one unique* order and one unique act in which they all participate. But to ascertain the order, which he who contemplates reality and aspires to the knowledge of the First Principle perceives, is difficult, and what human understanding can grasp of it is only its general principle.[1] What led the philosophers to believe in a gradation of these principles, in conformity with the spatial order of their spheres, is that they saw that the highest sphere seems in its action superior to what is under it, and that all the other spheres follow its movement.[2] And therefore they believed that what was said about their order was based on their spatial order. But one might perhaps object that the order in the spheres is perhaps only based on their activity, not on their spatial order; for since it seemed that the activities and movements of the planets exist because of the movement of the sun, perhaps their movers in setting them in motion follow the 234 sun, and the movement of the sun derives perhaps directly from the First.[3] For this reason there are in this question no indubitable assertions, but only assertions more or less plausible and likely to be true. And since this is established, let us now return to our subject.

Ghazali says:

The second answer is: people say of the First Principle that it knows only itself, because they want to avoid the implication of plurality in it, for the statement that it knows another would imply a duality: its knowing itself and its knowing another. However, the same applies to the first effect: it must necessarily know only itself. If it knew another and not itself alone, *there would have to be a different cause for its knowing* another than that for its knowing itself, but there is no other cause than that for its knowing itself, namely the First Principle. So it can only know itself, and the plurality which arose in this way disappears.

If it is said that it follows from its existence and from its knowing itself that it must know its principle, we answer: Does this necessity arise from a cause or without a cause? If the former is the case, there is no other cause than the one first cause from which only one effect can proceed, and indeed has proceeded, namely this first effect itself; how, therefore, could this second effect proceed from it? In the latter case, then, let the existence of the First Principle imply a plurality of existents without a cause, and let the plurality follow from them! But if such a thing cannot be imagined,

because the necessary existent can be only one, and anything added to it must be a possible, and the possible needs a cause, then the following conclusion must be drawn concerning the effect: if it is an existent necessary by itself, then what the philosophers say is untrue, that there is only one necessary existent; if it is a possible,[1] then it needs a cause; but it has no cause,[2] and therefore it cannot know the existence of its cause.

235 There is no special necessity for the first effect to have a possible existence; this is necessary for any effect. However, that the effect should know its cause is not necessary for its existence, just as the knowledge of its effect is not necessary for the existence of the cause; still, it seems more plausible that the cause should know its effect than that the effect should know its cause.[3] Therefore the plurality which would arise from its knowing its principle is impossible; there is no principle for this knowledge and it is not a necessary consequence of an effect that it should know its principle; and out of this there is no issue.

I say:

This is a proof of one who affirms that the First Principle must, besides knowing itself, know its effect; for, if not, its knowing itself would be imperfect.[4]

The meaning of Ghazali's objection is that the knowledge the effect has of its principle must either be based on a cause or be without a cause. In the former case, there must be a cause in the First Principle, but there is none; in the latter case, a plurality must follow from the First Principle, even if it does not know it; if, however, a plurality follows from it, it cannot be a necessary existent, for there can be only one necessary existent, and that from which there proceeds more than one is only a possible existent; but the possible existent needs a cause, and therefore their assertion that the First Principle is a necessary existent is false, even if it does not know* its effect. He says also that if it is not a necessity of its existence that the effect should have knowledge of its cause, it even seems more fitting that it is not a necessity of its existence that the cause should know its effect.

236 My answer to this is that all this is sophistical. If we assume that the cause is an intellect and knows its effect, it does not follow that this is an addition to the essence of the cause; on the contrary, it belongs to the essence itself, since the emergence of the effect is the consequence of its essence.[5] And it is not true that if the effect proceeds from the First Principle not because of a cause, but because of the essence of this principle, a plurality proceeds from it, for according to the thesis of the philosophers the emergence of the effect depends on the essence of the First Principle: if its essence is one, one proceeds

from it; if many, many proceed from it. What he assumes in this discussion, namely, that every effect is a possible existent, is only true for the composite effect, for there cannot be a compound that is eternal, and everything that is of a possible existence is generated, according to the philosophers, as Aristotle has shown in different passages of his works;[1] and we shall prove this more fully later in our discussion of the necessary being. What Avicenna calls the possible existent has only its name in common with what is in reality the possible existent; it is, therefore, by no means clear that it needs an agent in the way it is clear that the possible existent needs an agent.[2]

Ghazali says:

The third objection is: Is the self-knowledge of the first effect identical with its essence or not? If the former*, this is impossible, for knower and known cannot be identical; if the latter, let the same apply to the First Principle, so that plurality will follow* from the First Principle. And if the self-knowledge of the effect is not identical* with the essence of the effect, there will not only be a triplicity in the effect, as they affirm, but a quadruplicity, to wit: its essence, its knowledge of itself, its knowledge of its principle, and its being a possible existent by itself, and to this it should perhaps be added that it is an existent necessary through another—and then it would be fivefold. From this you can see and measure the depth of their ignorance. 237

I say:

In this discussion of the intellects there are two points: first the question about what these intellects know or do not know (this question was fully treated by the ancients); secondly, the question of what proceeds from these intellects. What Ghazali mentions here as the theory of the philosophers is in fact the individual opinion of Avicenna on this latter problem. Ghazali exerts himself especially to refute him and his followers, in order to create the impression that he has refuted them all; and this is acting like one who is, as he puts it, in the depths of ignorance. But this theory is not found in the works of any of the ancients; and there is no proof of it except the supposition that from the one there can proceed only one. But this proposition does not apply in the same way to the agents which are forms in matter as to the agents which are forms separate from matter, and according to the philosophers an intellect which is an effect must necessarily know its principle, and there are here not two entities, i.e. the intellect and something additional to its essence, for, if so, it would be a compound, and the intellect, which is simple, cannot be composite. And the difference in the separate forms between cause and 238

effect is that the First Cause exists by itself and the second cause exists through its relation with the First Cause, for the fact of its being an effect lies in its substance and is not an additional entity, in contrast with material effects; e.g. colour is an entity which exists by itself in a body, but it is the cause of sight, in so far as it is related, and sight has no existence except in this relation;[1] and in the same way* substances which are separate from matter are substances which are of the nature of relation. For this reason the cause and the effect are unified in the forms separated from matter,[2] and in the same way* sensible forms are of the nature of relation, as has been proved in the book on psychology.[3]

Ghazali says:

The fourth objection is that it can be said: Triplicity is not sufficient in the first effect, for the body of heaven which, according to the philosophers, proceeds from one entity out of the essence of its principle is composite, and this in three ways.

The first way is that it is composed of form and matter, as is body generally, according to the philosophers, and both must have a principle, since matter differs from form and they are, according to the philosophers, interdependent causes, so that the one cannot come into being by means of the other without the intervention of another cause.[4]

239 I say:

What he says here is that according to the philosophers the body of the heavens is composed of matter, form, and soul, and that therefore there must be in the second intellect,[5] from which the body of the heavens proceeds, four entities, namely, one from which the form proceeds, one from which the *hyle* proceeds—as both are interdependent, for matter is in one way a cause of form and form in one way a cause of matter[6]—one from which the soul proceeds, and one from which the mover of the second sphere proceeds.[7] But the view that the body of the heavens is composed of form and matter like other bodies is falsely ascribed by Avicenna to the Peripatetics. On the contrary, according to them the body of the heavens is a simple body; if it were composite, it would, according to them, suffer corruption, and therefore they say that it neither comes into being nor perishes, and does not possess the potency for contraries.[8] If it were as Avicenna says, it would be composite like a living being,[9] and if this were true, quadruplicity would be a necessary consequence for the man who asserted that from the one only one can proceed. And we have already stated that the way these forms are causes for each

other, for the heavenly bodies, and for the sublunary world, and the way the First Cause is a cause for all of them, is quite different from all this.

Ghazali says:

The second way is that the highest sphere has a definite measure of size, and its determination by this special measure taken from among all other measures is an addition to the existence of its essence, since its essence might be smaller or bigger than it is; therefore, it must have a determinant for this measure, added to the simple entity which causes its existence. The same necessity does not exist for the existence of the intellect, which is pure existence and not specified by any measure taken from among other measures, and therefore may be said to need only a simple cause. 240

I say:

The meaning of this statement is that when the philosophers say that the body of the sphere proceeds as a third entity, which by itself is not simple (for it is a body possessing quantity), there are here in reality two entities, the one which provides the substantial corporeality, the other the definite quantity; therefore there must be in the intellect from which the body of the sphere proceeds more than one entity, and therefore the second cause is not triple but quadruple. But this is a false assumption, for the philosophers do not believe that body in its entirety[1] proceeds from the separate principles; if anything proceeds from them, according to the philosophers, it is only the substantial form, and according to them the measures of the bodily parts follow from the forms; this, however, refers only to the forms in matter, but the heavenly bodies, since they are simple, are not susceptible of measure.[2] Therefore, to assume that form and matter proceed from an abstract principle is by no means in conformity with philosophical principles, and is quite absurd. In reality, the agent in transitory things,[3] according to the philosophers, produces neither the form nor the matter; it only makes a compound out of matter and form. If the agent produced the form in matter, it would produce the form in something, not from something.[4] This is not philosophical theory, and there is no sense in refuting it, as if it were. 241

Ghazali says, on behalf of the philosophers:

It might be said: If the sphere were bigger than it is, this greater size would be superfluous for the order of the universe; if smaller, it would not suffice for the intended order.

I say:

He means by this statement that the philosophers do not believe

that, for example, the body of the sphere could be bigger or smaller than it is, for in either case the order intended in the universe would not be realized, and the sphere would not set the world in motion according to its natural power, but either too strongly or too weakly, both of which would involve the corruption of the world. A greater size of the world would not be a superfluity, as Ghazali says; no, out of both, bigness and smallness, the corruption of the world would result.[1]

Ghazali says, to refute the philosophers:

We answer: Does the determination of the manner of this order suffice in itself for the existence of what possesses this order, or does it need a cause to effect it? If you believe it suffices, then you regard it as superfluous to assume causes at all, and you may well judge that from the order of these existents the existents themselves result without any additional cause; if, however, you believe it does not suffice, but a cause is necessary, this new cause will not suffice either for the specification of these measures,
242 but will itself need a cause for its specifying*.[2]

I say:

The summary of this is that he makes the objection against them that in the body there are many things which cannot proceed from one agent, unless they admit that many acts can proceed out of one agent, or unless they believe that many accidents of the body result from the form of the body and that the form of the body results from the agent. For, according to such an opinion, the accidents resulting from the body which comes into being through the agent do not proceed from the agent directly but through the mediation of the form.[3] This is a conception permissible to the doctrines of the philosophers, but not to those of the theologians. However, I believe that the Mu'tazilites think as the philosophers do that there are things which do not directly proceed from the agent.[4] We have already explained how the Monad is the cause of the order, and of the existence of all things which support this order, and there is no sense in repeating ourselves.

Ghazali says:

The third way is that in the highest heavens there are marked out two points, the poles, which are immovable and do not leave their position, whereas the parts of the equator change their position. Now either all the
243 parts of the highest sphere are similar (and then there will not be a special determination of two points amongst all the points to be poles), or the parts of the sphere are different and some have a special character which others have not. What, then, is the principle of these differences? For the

body of the heavens proceeds from only one and the same simple entity and the simple can cause only that which is simple of shape, namely the sphere, and that which is homogeneous, that is, has no special distinguishable character. And out of this there is no issue.

I say:

'Simple' has two meanings: first, simplicity can be attributed to that which is not composed of many parts, although it is composed of form and matter, and in this way the four elements are called simple;[1] secondly, it can be attributed to that which is not composed of form and matter capable of changing its form,[2] namely to the heavenly bodies; further, simplicity can be attributed to the agglomerate which has the same definition for its whole and its part, even when it is composed of the four elements.[3] The simple character which is attributed to the heavenly bodies can very well possess parts which are differentiated by nature, as are the right and left sides of the sphere and the poles; for the globe, in so far as it is a globe, must have definite poles and a definite centre through which globes differ individually, and it does not follow from the fact that the globe has definite sides that it is not simple, for it is simple in so far as it is not composed of form and matter in which there is potency, and it is non-homogeneous in so far as the part which receives the place of the poles* cannot be any part of the globe, but is a part determined by nature in each globe individually. If this were not so, globes could 244
not have centres by nature through which they were differentiated; thus they are heterogeneous—in this special meaning of the word 'heterogeneous'—but this does not imply that they are composed of bodies different by nature, nor that their agent is composed of many potencies, for every globe is one. Nor do the philosophers regard it as true that every point of whatever globe can be a centre and that only the agent specifies the points, for this is only true in artificial things, not in natural globes.[4] And from the assumption that every point of the globe can be a centre, and that it is the agent which specifies the points, it does not follow that the agent is a manifold unless one assumes that there is in the empirical world nothing that can proceed from a single agent; for in the empirical world things are composed of the ten categories and therefore anything whatever in the world would need ten agents. But all this, to which the view in question leads, which is very much like babbling in metaphysics, is stupid and senseless talk. The artificial product in the empirical world is produced, indeed, by only one agent, even if it possesses the ten

categories. How untrue is this proposition that the one can produce
245 only one, if it is understood in the way Avicenna and Farabi understand it, and Ghazali himself in his *Niche for Lights*, where he accepts their theory of the First Principle.[1]

Ghazali says:

One might say: 'Perhaps there are in the principle different kinds of plurality which do not result from its being a principle,[2] only three or four are manifest to us, and the rest we do not perceive, but our incapacity for observation[3] does not shake our belief that the principle of plurality is
5 plurality and that from the one no manifold can proceed.'

I say:

If the philosophers made such a statement, they would have to believe that there is in the first effect an infinite plurality, and one would necessarily have to ask them whence plurality comes in the first effect. And since they say that from the one no manifold proceeds, they would have to concede that the manifold cannot proceed
10 from the One, but their statement* that from the one only one proceeds contradicts their statement* that what proceeds from the First Monad possesses plurality, for from the One one must proceed. Of course they can say that each term in the plurality of the first effect is a first term, but then there must be a plurality of first terms. It is most astonishing how this could remain hidden from Farabi and Avicenna, for they were the first who made these silly statements, and many followed them and attributed these theories to the philo-
246 sophers. For when Farabi, Avicenna, and their school say that the plurality in the second principle arises through its self-knowledge and its knowing another, it follows for them that its essence has two natures or two forms, and it would be interesting to know which form proceeds from the First Principle and which does not. And there
5 is a similar difficulty in their statement that the second principle is possible by itself, but necessary by another, for its possible nature must necessarily be different from its necessary nature, which it acquires from the necessary being. But the possible nature cannot become necessary, unless the nature of the possible can become necessary. Therefore there is in necessary natures no possibility at
10 all, be it a possibility necessary by itself or a possibility necessary by another.[4] All these are senseless statements and assertions, weaker than those of the theologians, extraneous to philosophy, and not congruous with its principles, and none of these affirmations reaches the level of rhetorical persuasion, to say nothing of dialectic persuasion.

And therefore what Ghazali says in different passages of his books is true, that the metaphysics of Farabi and Avicenna are conjectural.

Ghazali says:

We answer: If you regard this as possible, say then that all existing things in their multiplicity (and indeed their number reaches thousands) derive from the first effect and one need not limit this to the body of the extreme sphere[1] and its soul, but all souls, heavenly and human, and all 247
earthly and heavenly bodies can proceed from it, with the many diversities, belonging to them, which nobody has ever seen. But then the first effect will suffice.

I say:

This conclusion is true, especially when they imagine that the first act proceeding from the First Principle is the unity through which the first effect becomes a unique existent, notwithstanding the plurality 5
in it. And indeed, if they allow an undetermined plurality in the first effect, it must be less or more than the number of existents, or equal to it; if less, they must introduce a third principle unless there is a thing without cause, if equal or more, the plurality assumed* in it will be superfluous.[2]

Ghazali says:

And then it follows that the First Cause by itself will suffice too. For if one 10
regards it as possible that a plurality should arise inevitably, although without a cause, and although there is no necessity for it in the existence of the first effect, this will be permissible also with reference to the First Cause, and the existence of all things will be without a cause, although it is said that they follow inevitably and their number is not known. And if their existence without a cause can be imagined with reference to the First Cause, it can also be imagined with reference to the second cause; indeed, there is no sense in speaking of a reference to the first or to the second cause, since there is no distinction between them in time and place[3] and neither the first nor the second cause can be characterized by its rela- 248
tion to things which do not differ from them in time and place and can exist without a cause.[4]

I say:

He says that if a plurality in the first effect is permissible without a cause, because out of the First Cause there does not follow a plurality, one may also suppose a plurality within the First Cause, and there is no need to assume a second cause and a first effect. And if the existence of something without cause within the First Cause is impossible, 5
then it is also impossible within the second cause; indeed, our expression 'second cause' has no sense, since in fact they are one and the

same thing, and the one is not different from the other either in time or in space, and if it is permissible that something should exist without a cause, neither the First Cause nor the second can be specially distinguished by this; it suffices that it refers to one of them and therefore it is not necessary to refer it to the second cause.

Ghazali says by way of an answer in the name of the philosophers:

It might be said: 'The entities have become so many that they exceed thousands, but it seems absurd that a plurality of that extent exists in the first effect and for this reason we have multiplied the intermediates.'

Then he says in refutation of this:

We answer, however: To say 'it seems absurd' is pure conjecture, and such a judgement should not be applied to intelligibles. But if one says
249 that it is impossible, we ask: 'Why is it impossible, what will refute it, and where is the criterion?' For, once we exceed the one and believe that one, two, or three entities can arise in the first effect without a cause, what makes it impossible that there should be four, five, indeed, a thousand and many thousands*, and who could fix the limit? No, if unity is once exceeded, nothing can be rejected. This proof again is decisive.

I say:

If, however, Avicenna and these other philosophers had answered that the first effect possesses plurality, and that necessarily any plurality becomes one through a unity which requires that plurality should depend on unity, and that this unity through which plurality becomes one is a simple entity which proceeds from an individual simple Monad, then they would have saved themselves from these objections of Ghazali, and disengaged themselves from these false theories.[1] But since Ghazali secured his point by ascribing a false assumption to the philosophers, and did not find anyone to give him a correct answer, he made merry and multiplied the impossibilities which can be deduced from their theory, for anyone who lets his horse canter in an empty space can make merry.[2] But if he had known that he did not thereby refute the philosophers, he would not have been so delighted about it. The fundamental mistake of Avicenna and Farabi was that they made the statement that from the one
250 only one can proceed, and then assumed a plurality in the one which proceeds. Therefore they were forced to regard this plurality as uncaused. And their assumption that this plurality was a definite plurality[3] which demanded the introduction of a third and fourth principle was a supposition not enforced by any proof. And generally, this assumption is not a legitimate assumption for a first and second prin-

ciple, for they might be asked, 'Why has only the second principle and not the first this special character of possessing a plurality?' All this is foolish and senseless talk. The fact is that Avicenna and Farabi did not know how the Monad was a cause in the system of Aristotle and the Peripatetics. Aristotle, in the twelfth book of his *Metaphysics*, expresses pride in his solution,[1] and says that none of his predecessors could say anything about this problem.[2] In the sense in which we have expounded the Aristotelian doctrine, this statement that out of the one only one can proceed is true, and the statement that out of the one a plurality proceeds is equally true.

Ghazali says:

Further, we affirm that the statement that out of the one only one can proceed is false in respect of the second effect, for out of it there emanates the sphere of the fixed stars, in which there are a thousand and twenty-odd stars*,[3] different in magnitude,[4] shape, position, colour,[5] and influence, be it of ill omen or auspicious, some in the shape of a ram, a bull, or a lion, 251
others in the shape of a man;[6] they influence one and the same place of the sublunary world differently in conferment of cold and warmth, fortune and misfortune,[7] and their own measures are variable.[8] On account of their differences it cannot be said that they are all of one kind; for if this could be said, it might also be said that all the bodies of the world were of one and the same kind of corporeal nature, and that one cause sufficed for them all. But just as the differences in qualities, substances, and natures of the bodies of the sublunary world show that they themselves are different, in the same way the stars, no doubt, are shown to differ, and each of them will need a cause for its form, a cause for its matter, a cause for the special function in its nature, to bring warmth or cold or happiness or calamity, a cause for its being in the definite place it occupies, then again a cause for its special tendency to group itself with others in the shapes of different animals. And if this plurality can be imagined to be known in the second intellect, it can also be imagined in the first intellect; and then this first intellect will suffice.

I say:

He had already exhausted this difficulty which is of a type he uses abundantly in this book, and if the answer we have given in defence of the philosophers is valid, none of these impossibilities need follow. But if by this expression one understands that, from the simple numerically one, only one simple one—not something numerically one in one way, but plural in another—can proceed, and that its unity is the cause of the existence of plurality, then one can never escape from these doubts. And again, things only become many, according to the philosophers, through substantial differences, and

differences through accidents—be they quantitative, qualitative, or in whichsoever of the nine categories of the accident—do not cause, according to them, differentiations in the substance,[1] and the heavenly bodies, as we said, are not composed of matter and form
252 and are not specifically different, since they have, according to the philosophers, no common genus (for, if so, they would be composite, not simple).[2] But we have treated of this already, and there is no sense in repeating ourselves.

Ghazali says:

The fifth objection is to say: If we concede these inept assumptions
5 and these erroneous judgements, how is it then that they are not ashamed to say that from the fact that the first effect is of a possible existence, there results the existence of the highest sphere, and that from its knowledge of itself there follows the existence of the soul of the sphere and from its knowledge of the First Principle there follows the existence of an intellect? What is the difference between this and the statement that the existence of an unknown man is necessary*, and that he is of a possible existence and knows himself and his Creator and then that from the fact that he is of a possible existence there follows the existence of a sphere? But it will be objected: What is the relation between his having a possible existence and the existence of a sphere following from him? And the same holds for the fact that from his knowing himself and his
10 Creator there follow two other entities. But it would be ridiculous to say such a thing about a man or any other existent whatever, for the possibility of existence is a concept which does not change through the changing of the possible object, be it a man or an angel or a sphere.[3] I do not know how any madman could content himself with any of these assertions, let alone the learned who split hairs in their discussions about intelligibles.

I say:

These are all theories of Avicenna and his followers, which are not true and are not built on the foundations of the philosophers; still they are not so inept as this man says they are, nor does he represent
253 them in a true light. For the man whom he supposed to be of a possible existence through himself and necessary through another, knowing himself and his agent, is only a true representation of the second cause, when it is assumed in addition that through his essence and through his knowledge he is the agent of the existents, in the way this is assumed by Avicenna and his school of the second principle,
5 and in the way all philosophers must admit it of the First Principle, God, glory be to Him. If this is admitted, it follows that from this man two things proceed: one in so far as he knows himself, the other,

in so far as he knows his Creator, for he is supposed to act only because of his knowledge, and it is not absurd, if he is supposed to act because of his essence, to say that what proceeds from him, in so far as he has a possible existence, is different from what proceeds from him in so far as he has a necessary existence, since both these attributes exist in his nature. This theory, therefore, is not so ignominious as this man tries to represent it to be through this comparison, in order to cast odium on the theories of the philosophers and to make them despicable in the eyes of students.[1]

There is no difference between Ghazali's comparison and a person who said: If you assume a being living through life, willing through will, knowing through knowledge, hearing, seeing, and speaking through audition, sight, and speech, and the whole world proceeds from him,[2] it is possible* that from man, living, knowing, hearing, 254
seeing, speaking, the whole world proceeds, for if these attributes by themselves determine the existence of the world, it cannot make any difference in the effect through whichever being possessing these attributes they produce it.[3] If this man Ghazali sought to speak the truth in this and erred, he might be forgiven; if, however, he understood how to deceive in these things and tried that, and if there were no necessity for him to do so, there is no excuse for him. And if he only wanted to show that he possessed no proof by which he could provide an answer to the question whence plurality proceeds, as might be inferred from what he says below, he speaks the truth, for Ghazali had not reached the degree of knowledge necessary for comprehending this problem, as will be seen from what he says later; and the reason is that he studied only the books of Avicenna, and through this the deficiency in his knowledge arose.

Ghazali says:

But if one should say to us: 'Certainly, you have refuted their theory, but what do you say yourself? Do you affirm that from one thing two different things can in any way proceed? In that case you offend reason. Or will you say that in the First Principle there is plurality? In that case you abandon the doctrine of God's unity. Or will you say that there is no plurality in the world? In that case you contradict the evidence of the senses. Or will you say that plurality occurs through intermediates? In that case you are forced to acknowledge the theory of your opponents.' We answer: 'We have not made a deep inquiry in this book; our aim— 255
which we have attained—was only to disturb the claims of our opponents.' To this we may add that the claim that the thesis that two proceed from one is an affront to reason, and the claim that the attribution of eternal

attributes to the First Principle contradicts the doctrine of God's unity—both these claims, we say, are vain and possess no proof. The impossibility that two should proceed from one is not known in the way the impossibility of one single person's being in two places is known; in short, it is known neither by intuitive necessity nor by deduction. What is the objection against saying: 'The First Principle is provided with knowledge, power, will; He acts as He wants, He judges as He wants, He creates the dissimilar and the similar as He wants and in the way He wants?' The impossibility of this is known neither by immediate necessity nor by deduction. But the prophets have brought us this truth, justifying it through their miracles, and we must accept it.[1] To inquire, however, how God's act proceeds from Him through His Will is vain and an illusory pursuit. Those who have sought to represent and understand this have arrived as a result of their inquiry at a first effect from which as a possible existent there proceeds a sphere, and from which, so far as it knows itself, there proceeds the soul of the sphere. But this is nonsense and is by no means an appropriate explanation. Let us therefore accept the principles of these things from the prophets, and let us believe in this, since the intellect does not regard it as impossible. And let us abandon the inquiry about quality, quantity, and quiddity,[2] for the human powers do not suffice for this. And therefore the master of the Divine Law has said: Think about God's creation, but do not think about God's essence.[3]

I say:

His statement is true, that we have to refer to the Law of God everything which the human mind is unable to grasp. For the knowledge which results from revelation comes only as a perfection of the sciences of the intellect; that is, any knowledge which the weakness of the human mind is unable to grasp is bestowed upon man by God through revelation. This inability to comprehend things the knowledge of which is, however, necessary in the life and existence of man, is either absolute—i.e. it is not in the nature of the intellect, in so far as it is intellect, to comprehend such a thing—or it is not in the nature of a certain class of men, and this kind of weakness is either a fundamental character of his disposition or something accidental through a lack of education. Revelation is a mercy bestowed on all these classes of men.[4]

256

And as to Ghazali's words:

Our aim—which we have attained—was only to disturb our opponents;

this aim is not a proper one for him and is censurable in a learned man, for the intention of the learned, in so far as they are learned, must be to seek the truth, not to sow doubts and perplex minds.

And as to his words:

the impossibility that two should proceed from one is not known in the way the impossibility a single person's being in two places is known; although these two propositions are not of the same degree of assent, still the proposition that from the simple unit there proceeds only one single unit keeps its evidence inside the empirical world. Propositions which are evident differ in their degree of evidence, as has been shown in the *Posterior Analytics*,[1] and the reason for this is that when evident propositions are supported by imagination they receive a stronger degree of assent, and unsupported by imagination their assent is weakened; but only the masses rely on imagination, and he who is well trained in intellectual thought and renounces imagination accepts both propositions with the same degree of assent.

The strongest degree of evidence pertains to this proposition when a man makes an induction from transitory existents and sees that they only change their names and definitions through their acts and that, if any existent whatever could arise from any act and any agent whatever, the essences and definitions would become mixed and knowledge would be annihilated.[2] The soul, for instance, distinguishes itself from the inorganic only through its special acts which proceed from it, and inorganic things are only distinguished from one another through the acts that are proper to them; and the same applies to souls.[3] And if many acts were to proceed from a single potency, in the way that many acts proceed from composite potencies, there would be no difference between the simple and the composite essence and they would be indistinguishable for us. And again, if many acts could proceed from one single essence, an act without an agent would be possible, for an existent comes to be through an existent, not through a non-existent, and therefore the non-existent cannot come to be by itself; and if it is true that the mover of the privation and the transposer of its potency into act transposes it only through the actuality it possesses itself, of necessity the actuality it possesses must be of the same kind as the act it transposes.[4] If any effect whatever could proceed from any agent whatever, it would not be impossible that the effects should be actualized by themselves without an agent. And if many kinds of potency could be actualized through one and the same agent, this agent would itself have to possess these kinds or related kinds, for if it possessed only one of these kinds, all the other kinds would have to be actualized by themselves without a cause. It is not permissible to say: The only condition for the agent is that it exists as acting with an absolute

action, not with a specified kind of action; for, in that case, any existent whatever would be able to perform any act whatever and what exists would be mixed;[1] besides, the absolute, that is the universal, existent stands nearer to non-existence than the real individual existent.[2] So those who denied the theory of universals denied the belief in a universal existent and in a universal becoming*,[3] whereas the champions of this theory regarded them as something midway between being and non-being; but if this were the case, it would follow that the universals could be a cause of existents. The proposition that from the one only one act can proceed is more evident for the empirical than for the divine world. For knowledge multiplies through the multiplying of the objects of thought in the world, since the intellect knows these objects in the way that they exist in the world, and they are the cause of its knowledge.[4] It is not possible for many objects of thought to be known through one act of thought, nor can one act of thought produce many effects in the empirical world, e.g. the knowledge of the artisan which produces, for example, a cupboard is different from the knowledge which produces a chair. But eternal wisdom and the eternal agent differ in this matter from temporal knowledge and the temporal agent.

If I were asked 'What is your own point of view in this question? You have denied Avicenna's theory of the cause of plurality, but what do you say yourself? For it has been pointed out that the different schools of philosophy have three different answers to this question; that the plurality comes only through matter; that the plurality comes only through instruments; that the plurality comes through mediators.[5] And it is said of the Peripatetics that they accept the theory which makes mediation the cause of plurality'—I cannot give in this book an answer to this question supported by a demonstrative proof. We find, however, neither in Aristotle nor in any of the known Peripatetics this theory which is ascribed to them, with the exception of Porphyry, the Tyrian, the author of the *Introduction to Logic*, and he is not among the most subtle of philosophers.[6] My opinion is that according to the principles of the Peripatetics the cause of plurality is a combination of three factors, the intermediates, the dispositions, and the instruments; and we have already explained how all these depend on the Monad and refer to it, for each of them exists through an absolute unity which is the cause of plurality. For it seems that the cause of the plurality of the separate intellects is the difference in their natures, by which they receive the knowledge they gain of the

First Principle and which acquire from the First Principle a unity which by itself is one single act, but which becomes many through the plurality of the recipients, just as there are many deputies under the power of a king and many arts under one art. This we shall examine in another place, and if some part of it becomes clear it will suffice; otherwise we must take refuge in revelation. In so far as the differences depend on differences between the four causes, the question is clear. For the differentiation of the spheres arises from the differences of their movers, of their forms, of their matter, supposing they have matter,[1] and of their acts which serve a special end in the world, even if the philosophers did not believe that these spheres exist for the sake of these acts.[2] As to the differences which arise primarily in the sublunary world in the elements, as for instance the differences between fire and earth, and in short the opposites, they are based on the differentiation of matter and on their varying distances from their movers,[3] which are the heavenly bodies. As to the difference between the two supreme movements,[4] one of which is the agent of generation and the other the agent of corruption, they depend on the differentiation of the heavenly bodies and their motions, as is proved in the book *On Generation and Corruption*. For the difference which arises from the heavenly bodies resembles the difference which arises from the difference in the instruments. To sum up: the factors for the origination of plurality from the one Agent are three, according to Aristotle, and he refers to the One in the sense mentioned above, namely, that the One is the cause of the plurality. In the sublunary world the differences arise from the four causes, that is to say, the difference of the agents, the matter, the instruments, and the intermediaries which transmit the acts of the First Agent without its direct interference, and those intermediaries are very similar to the instruments. And an example of the differentiation which arises through the difference of the recipients, and out of the fact that certain differentiated things cause others, is colour. For the colour which arises in the air differs from the colour in the body, and the colour in the faculty of sight, i.e. in the eye, from the colour in the air, and the colour in the common internal sense from the colour in the eye, and the colour in the imagination from the colour in the common internal sense, and the colour in the memorative and retentive faculty from the colour in the imagination; and all this has been explained in the book of psychology.[5]

261

262

263

THE FOURTH DISCUSSION

Showing that they are unable to prove the existence of a creator of the world

Ghazali says:

We say: Mankind is divided into two categories; one, the men of truth who have acknowledged that the world has become and know by necessity that what has become does not become by itself but needs a creator, and the reasonableness of their view lies in their affirmation of a creator; the other, the materialists, believe the world, in the state in which it exists,[1] to be eternal and do not attribute a creator to it, and their doctrine is intelligible, although their proof shows its inanity. But as to the philosophers, they believe the world to be eternal and still attribute a creator to it. This theory is self-contradictory and needs no refutation.[2]

264 I say:

The theory of the philosophers is, because of the factual evidence,[3] more intelligible than both the other theories together. There are two kinds of agent: (1) the agent to which the object which proceeds from it is only attached during the process of its becoming; once this process is finished, the object is not any more in need of it—for instance, the coming into existence of a house through the builder; (2) the agent from which nothing proceeds but an act which has no other existence than its dependence on it.[4] The distinctive mark of this act is that it is convertible with the existence of its object, i.e. when the act does not exist the object does not exist, and when the act exists the object exists—they are inseparable. This kind of agent is superior to the former and is more truly an agent, for this agent brings its object to being and conserves it, whereas the other agent only brings its objects to being, but requires another agent for its further conservation. The mover is such a superior agent in relation to the moved and to the things whose existence consists only in their movement. The philosophers, believing that movement is the act of a mover and that the existence of the world is only perfected through motion, say that the agent of motion is the agent of the world, and if the agent refrained for only one moment from its action, the world would be annihilated.[5] They use the following syllogism: The world is an act, or a thing whose existence is consequent upon this act. Each act by its existence implies the existence of an agent. Therefore the world has an agent existing by reason of its existence. The man who regards it as necessary that the act which proceeds from the

agent of the world should have begun in time says: The world is temporal through an eternal agent. But the man for whom the act of the Eternal is eternal says: The world has come into being[1] from an 265
eternal agent having an eternal act, i.e. an act without beginning or end; which does, however, not mean that the world is eternal by itself, as people who call the world eternal imagine it to be.

Ghazali says, on behalf of the philosophers:

The philosophers might answer: When we affirm that the world has a creator, we do not understand thereby a voluntary agent who acts after not having acted, as we observe in the various kinds of agents, like tailors, 5
weavers, and builders, but we mean the cause of the world, and we call it the First Principle, understanding by this that there is no cause for its existence, but that it is a cause of the existence of other things; and if we call this principle the Creator, it is in this sense. It is easy to establish by a strict proof an existent for the existence of which there is no cause. For we say that the world and its existents either have a cause or have not. If it has a cause, this cause itself either has or has not a cause, and the same can be said about the latter cause, and either we go on *ad infinitum* in this way, and this is absurd, or we arrive at a last term, and this end is the First 10
Cause, which has no cause for its existence and which we call First Principle. And if the world existed by itself without cause, then it would be clear what the First Principle is, for we only mean by it an existent without a cause and which is necessarily eternal. However, it is not possible that the First Principle should be the heavens, for there are many of these and the proof of unity contradicts this, and its impossibility is shown on examination of the attribute of the principle.[2] Nor can it be said that one single heaven, or one single body, the sun or any other body, can be the First Principle; for all these are bodies, and body is composed of matter and form, and the First Principle cannot be composite, as is clear on a second examination. Our intention is to show that an existent which has no cause is eternal by necessity and by universal consent, and only about its qualities is there a divergence of opinion. And this is what we mean by a first principle.

I say: 266

This argument carries a certain conviction, but still it is not true. For the term 'cause' is attributed equivocally to the four causes—agent, form, matter, and end. Therefore if this were the answer of the philosophers, it would be defective. For if they were asked which cause they mean by their statement that the world has a first cause, and if they answered, 'That agent whose act is uncreated and ever- 5
lasting, and whose object is identical with its act', their answer would be true according to their doctrine; for against this conception, in the way we expounded it, there is no objection. But if they answered

'The formal cause', the objection would be raised* whether they supposed the form of the world to subsist by itself in the world, and if they answered, 'We mean a form separate from matter', their statement would be in harmony with their theory; but if they answered, 'We mean a form in matter', this would imply that the First Principle was not something incorporeal; and this does not accord with philosophical doctrine. Further, if they said, 'It is a cause which acts for an end', this again would agree with the philosophical doctrine. As you see, this statement is capable of many interpretations, and how can it be represented there as an answer of the philosophers?

And as to Ghazali's words:

> We call it the First Principle, understanding by this that there is no cause for its existence, but that it is a cause for the existence of other things.

this again is a defective statement, for this might be said also of the first sphere, or of heaven in its entirety, or generally of any kind of existents which could be supposed to exist without a cause; and between this and the materialistic theory[1] there is no difference.

267 And as to Ghazali's words:

> It is easy to establish by a strict proof an existent for the existence of which there is no cause.

this again is a defective statement, for the causes must be specified, and it must be shown that each kind has an initial term without cause—that is, that the agents lead upwards to a first agent, the formal causes to a first form, the material causes to a first matter, and the final causes to a first end.[2] And then it must still be shown that these four ultimate causes lead to a first cause. This is not clear from the statement as he expresses it here.

And in the same way the statement in which he brings a proof for the existence of a first cause is defective, i.e. his statement:

> For we say that the world and its existents either have a cause or have not. . . .

For the term 'cause' is used in an equivocal way. And similarly the infinite regress of causes is according to philosophical doctrine in one way impossible, in another way necessary; impossible when this
268 regress is essential and in a straight line and the prior cause is a condition of the existence of the posterior, not impossible when this regress is accidental and circular, when the prior is not a condition for the posterior and when there exists an essential first cause—for instance, the origin of rain from a cloud, the origin of a cloud from

vapour, the origin of vapour from rain. And this is according to the philosophers an eternal circular process, which of necessity, however, presupposes a first cause.[1] And similarly the coming into existence of one man from another is an eternal process, for in such cases the existence of the prior is not a condition for the existence of the posterior; indeed, the destruction of some of them is often a necessary condition. This kind of cause leads upwards to an eternal first cause which acts in each individual member of the series of causes at the moment of the becoming of its final effect; for instance, when Socrates engenders Plato, the ultimate mover, according to the philosophers, is the highest sphere, or the soul, or the intellect,[2] or all together, or God the Creator. And therefore Aristotle says that a man and the sun together engender a man,[3] and it is clear that the sun leads upwards to its mover and its mover to the First Principle. Therefore the past man is not a condition for the existence of the future man. 269
Similarly, when an artisan produces successively a series of products of craftsmanship with different instruments, and produces these instruments through instruments and the latter again through other instruments,[4] the becoming of these instruments one from another is something accidental, and none of these instruments is a condition for the existence of the product of craftsmanship except the first[5] instrument which is in immediate contact with the work produced.[6] Now the father is necessary for the coming into existence of the son in the same way as the instrument which comes into immediate contact with the product of craftsmanship is necessary for its coming into existence. And the instrument with which this instrument is produced will be necessary for the production of this instrument, but will not be necessary for the production of the product of craftsmanship unless accidentally. Therefore sometimes, when the posterior instrument is produced from the matter of the anterior, the destruction of the anterior is a condition for the existence of the posterior, for instance, when a man comes into being from a man who has perished, through the latter becoming first a plant, then sperm or menstrual blood.[7] And we have already discussed this problem. Those, however, who regard an infinite series of essential causes as possible are materialists, and he who concedes this does not understand the efficient cause. And about the efficient cause there is no divergence of opinion among philosophers.

And as to Ghazali's words:

And if the world existed by itself without cause, then it would be clear what the First Principle is.

he means that the materialists as well as others acknowledge a first
270 cause which has no cause, and their difference of opinion concerns only this principle, for the materialists say that it is the highest sphere and the others that it is a principle beyond the sphere and that the sphere is an effect; but these others are divided into two parties, those who say that the sphere is an act that has a beginning and those who say that it is an eternal act. And having declared that the acknowledgement of a first cause is common to the materialists as well as to others, Ghazali says:

5 However, it is not possible that the First Principle should be the heavens, for there are many of these and the proof of unity contradicts this;

meaning that from the order of the universe it is evident that its directing principle is one, just as it appears from the order in an army that its leader is one, namely, the commander of the army. And all this is true.

And as to Ghazali's words:

Nor can it be said that one single heaven or one single body, the sun or any other body, can be the First Principle; for all these are bodies, and
10 body is composed of matter and form, and the first body cannot be composite.

I say:

The statement that each body is composed of matter and form does not accord with the theory of the philosophers (with the exception of Avicenna) about the heavenly body, unless one uses 'matter' here equivocally.[1] For according to the philosophers everything composed of matter and form has a beginning, like the coming into existence of a house and a cupboard; and the heavens, according to them, have not come into existence in this sense, and so they called them eternal, because their existence is coeternal with the First
271 Principle. For since according to them the cause of corruption is matter, that which is incorruptible could not possess matter, but must be a simple entity. If generation and corruption were not found in sublunary bodies, we should not draw the conclusion that they were composed of matter and form, for the fundamental principle is that body is a single essence not less in its existence than in
5 perception,[2] and if there were no corruption of sublunary bodies, we should judge that they were simple and that matter was body. But the fact that the body of the heavens does not suffer corruption shows that its matter is actual corporeality. And the soul which exists in this

body does not exist in it because this body requires, as the bodies of animals do, the soul for its continuance, nor because it is necessary for the existence of this body to be animated, but only because the superior must of necessity exist in the condition of the superior and the animate is superior to the inanimate.[1] According to the philosophers there is no change* in the heavenly bodies, for they do not possess a potency in their substance. They therefore need not have matter in the way the generable bodies need this, but they are either, as Themistius affirms, forms,[2] or possess matter in an equivocal sense of the word. And I say that either the matters of the heavenly bodies are identical with their souls, or these matters are essentially alive, not alive through a life bestowed on them.[3]

Ghazali says: 272

To this there are two answers. The first is that it can be said: Since it follows from the tenets of your school that the bodies of the world are eternal, it must follow too that they have no cause, and your statement that on a second examination such a conclusion must be rejected will itself be rejected when we discuss God's unity and afterwards the denial of attributes to God.

I say:

Ghazali means that since they cannot prove the unity of the First Principle, and since they cannot prove either that the One cannot be body—for since they cannot deny the attributes, the First Principle must, according to them, be an essence endowed with attributes, and such an essence must be a body or a potency in a body[4]—it follows that the First Principle which has no cause is the celestial bodies. And this conclusion is valid against those who might argue in the way he says the philosophers argue. The philosophers, however, do not argue thus, and do not say that they are unable to prove the unity and incorporeality of the First Principle. But this question will be discussed later.

Ghazali says: 273

The second answer, and it is the answer proper to this question, is to say: it is established as a possibility that these existents can have a cause, but perhaps for this cause there is another cause, and so on *ad infinitum*. And you have no right to assert* that to admit an infinite series of causes is impossible, for we ask you, 'Do you know this by immediate necessary intuition or through a middle term?' Any claim to intuition is excluded, and any method of deductive proof is forbidden to you, since you admit celestial revolutions without an initial term; and if you permit a coming into existence for what is without end,[5] it is not impossible that the series should

consist of causal relations and have as a final term an effect which has no further effect, although in the other direction the series does not end in a cause which has no anterior cause,[1] just as the past has a final term, namely the everchanging present, but no first term. If you protest that the past occurrences do not exist together at one moment or at certain moments, and that what does not exist cannot be described as finite or infinite, you are forced to admit this simultaneous existence for human souls in abstraction from their bodies; for they do not perish, according to you, and the number of souls in abstraction from their bodies is infinite, since the series of becoming from sperma to man and from man to sperma is infinite, and every man dies, but his soul remains and is numerically different from the soul of any man who dies before, simultaneously, or afterwards, although all these souls are one in species. Therefore at any moment there is an infinite number of souls in existence.

If you object that souls are not joined to each other, and that they have no order, either by nature or by position, and that you regard only those infinite existents as impossible which have order in space, like bodies which have a spatial order of higher and lower, or have a natural order like cause and effect, and that this is not the case with souls; we answer: 'This theory about position does not follow any more than its contrary;[2] you cannot regard one of the two cases as impossible without involving the other, for where is your proof for the distinction? And you cannot
274 deny that this infinite number of souls must have an order, as some are prior to others and the past days and nights are infinite. If we suppose the birth of only one soul every day and night, the sum of souls, born in sequence one after the other, amounts at the present moment to infinity.

The utmost you can say about the cause is that its priority to the effect exists by nature, in the way that its superiority to the effect is a matter of essence and not of space. But if you do not regard an infinite sequence as impossible for real temporal priority, it cannot be impossible for natural essential priority either. But what can the philosophers mean when they deny the possibility of an infinite spatial superposition of bodies, but affirm the possibility of an infinite temporal sequence? Is this theory not really an inept theory without any foundation?

I say: As to Ghazali's words:

But perhaps for this cause there is another cause and so on *ad infinitum* . . . and any method of deductive proof is forbidden to you, since you admit celestial revolutions without an initial term:

To this difficulty an answer was given above, when we said that the philosophers do not allow an infinite causal series, because this would lead to an effect without a cause, but assert that there is such a series accidentally from an eternal cause—not, however, in a

straight line, nor simultaneously, nor in infinite matters, but only as a circular process.

What he says here about Avicenna, that he regarded an infinite number of souls as possible and that infinity is only impossible in what has a position, is not true[1] and no philosopher has said it; indeed, its impossibility is apparent from their general proof which 275
we mentioned, and no conclusion can be drawn against them from this assumption of an actual infinity of souls. Indeed, those who believed that the souls are of a certain number through the number of bodies and that they are individually immortal profess to avoid this assumption through the doctrine of the transmigration of souls.[2]

And as to Ghazali's words:

But what can the philosophers mean when they deny the possibility of 5
an infinite spatial superposition of bodies, but affirm the possibility of an infinite temporal sequence?

I say:

The difference between these two cases is very clear to the philosophers, for from the assumption of infinite bodies existing simultaneously there follows an infinite totality and an actual infinite, and this is impossible. But time has no position, and from the existence of 10
an infinite temporal series of bodies no actual infinite follows.

Ghazali says on behalf of the philosophers:

The philosophers might say: The strict proof of the impossibility of an infinite causal series is as follows: each single cause of a series is either possible in itself or necessary; if it is necessary, it needs no cause, and if it is possible, then the whole series needs a cause additional to its essence, a cause standing outside the series.[3]

I say: 276

The first man to bring into philosophy the proof which Ghazali gives here as a philosophical one, was Avicenna, who regarded this proof as superior to those given by the ancients, since he claimed it to be based on the essence of the existent, whereas the older proofs are based on accidents consequent on the First Principle.[4] This proof Avicenna took from the theologians, who regarded the dichotomy of existence into possible and necessary as self-evident, and assumed 5
that the possible needs an agent and that the world in its totality, as being possible, needs an agent of a necessary existence. This was a theory of the Mu'tazilites before the Ash'arites,[5] and it is excellent, and the only flaw in it is their assumption that the world in its totality

is possible, for this is not self-evident. Avicenna wanted to give a general sense to this statement, and he gave to the 'possible' the meaning of 'what has a cause',[1] as Ghazali relates.[2] And even if this designation can be conceded, it does not effect the division which he had in view. For a primary division of existence into what has a cause and what has no cause is by no means self-evident. Further, what has a cause can be divided into what is possible and what is necessary.[3] If we understand by 'possible' the truly possible[4] we
277 arrive at the necessary-possible[5] and not at the necessary which has no cause; and if we understand by 'possible' that which has a cause and is also necessary, there only follows from this that what has a cause has a cause and we may assume that this cause has a cause and so *ad infinitum*.[6] We do not therefore arrive at an existent without cause—for this is the meaning of the expression 'entity of a necessary existence'—unless by the possible which Avicenna assumes as the opposite of what has no cause we understand the truly possible, for in these possibles there cannot exist an infinite series of causes.[7] But if by 'possible' is meant those necessary things which have a cause, it has not yet been proved that their infinite number is impossible, in the way it is evident of the truly possible existents, and it is not yet proved that there is a necessary existent which needs a cause, so that from this assumption one can arrive at a necessary entity existing without a cause. Indeed, one has to prove that what applies to the total causal series of possible entities applies also to the total causal series of necessary existents.[8]

Ghazali says:

The terms 'possible' and 'necessary' are obscure, unless one understands by 'necessary' that which has no cause for its existence and by 'possible' that which has a cause for its existence;[9] then, by applying the terms as defined to the statement, we say: Each member of a causal series is possible in this sense of 'possible', namely, that it has a cause additional to its essence, but the series as a whole is not possible in this sense of 'possible'.[10] And if anything else is meant by 'possible', it is obscure. If it is objected that this makes the necessary existent consist of possible existents and this is impossible, we answer: By defining 'necessary' and 'possible' as we have done, you have all that is needed and we do not concede that it is impossible. To say that it is impossible would be like saying that it is impossible that what is eternal should be made up of what is temporal, for time according to you philosophers is eternal, but the individual circular
278 movements are temporal and have initial terms, though collectively they have no initial term; therefore, that which has no initial term consists

of entities having initial terms, and it is true of the single units that they have a beginning, but not true of them collectively. In the same way it can be said of each term of the causal series that it has a cause, but not of the series as a whole. And so not everything that is true of single units is true of their collectivity, for it is true of each single unit that it is one and a portion and a part, but not true of their collectivity; and any place on the earth which we choose is illuminated by the sun by day and is dark by night, and according to the philosophers each unit has begun, but not the whole. Through this it is proved that the man who admits temporal entities without a beginning, namely, the forms of the four elements,[1] cannot at the same time deny an infinity of causes, and we conclude from this that because of this difficulty there is no way in which they can prove the First Principle, and their dichotomy is purely arbitrary.[2]

I say:

The assumption of infinite possible causes implies the assumption of a possible without an agent, but the assumption of infinite necessary entities having causes implies only that what was assumed to have a cause has none, and this argument is true with the restriction that the impossibility of infinite entities which are of a possible nature does not involve the impossibility of infinite necessary entities.[3] If one wanted to give a demonstrative form to the argument used by Avicenna one should say: Possible existents must of necessity have causes which precede them, and if these causes again are possible it follows that they have causes and that there is an infinite regress; and if there is an infinite regress there is no cause, and the possible will 279 exist without a cause, and this is impossible. Therefore the series must end in a necessary cause, and in this case this necessary cause must be necessary through a cause or without a cause, and if through a cause, this cause must have a cause and so on infinitely; and if we have an infinite regress here, it follows that what was assumed to have a cause has no cause, and this is impossible. Therefore the series must end in a cause necessary without a cause, i.e. necessary by itself, and this necessarily is the necessary existent. And when these distinctions are indicated, the proof becomes valid.[4] But if this argument is given in the form in which Avicenna gives it, it is invalid for many reasons, one of which is that the term 'possible' used in it is an equivocal one and that in this argument the primary dichotomy of all existents into what is possible and what is not possible, i.e. this division comprising the existent *qua* existent, is not true.

And as to Ghazali's words in his refutation of the philosophers:

We say: Each member of a causal series is possible in this sense of

'possible', namely, that it has a cause additional to its essence, but the whole series is not possible in this sense of 'possible'.

I say:

Ghazali means that when the philosophers concede that they understand by 'possible existent' that which has a cause and by
280 'necessary existent' that which has no cause, it can be said to them: 'According to your own principles the existence of an infinite causal series is not impossible, and the series in its totality will be a necessary existent,' for according to their own principles the philosophers admit that different judgements apply to the part and to the whole collectively. This statement is erroneous for many reasons, one of which is
5 that the philosophers, as was mentioned before, do not allow an infinite series of essential causes, whether causes and effects of a possible[1] or of a necessary nature, as we have shown. The objection which can be directed against Avicenna is that when you divide existence into possible and necessary and identify the possible existent with that which has a cause and the necessary existent with that
10 which has none, you can no longer prove the impossibility of the existence of an infinite causal series, for from its infinite character it follows that it is to be classed with existents which have no cause and it must therefore be of the nature of the necessary existent, especially as, according to him and his* school, eternity can consist of an infinite series of causes each of which is temporal.[2] The fault in Avicenna's argument arises only from his division of the existent into that which has a cause and that which has none. If he had made his division in the way we have done, none of these objections could be directed
281 against him. And Ghazali's statement that the ancients, since they admit an infinite number of circular movements, make the eternal consist of an infinite number of entities, is false. For the term 'eternal', when it is attributed both to this infinite series and to the one eternal being, is used equivocally.[3]

And as to the words of Ghazali:

If it is objected that this makes the necessary existent consist of possible existents, and this is impossible, we answer: By defining 'necessary' and
5 'possible' as we have done you have all that is needed, and we do not concede that it is impossible.

I say:

Ghazali means that the philosophers understand by 'necessa that which has no cause and by 'possible' that which has a cause, and that he, Ghazali, does not regard it as impossible that what has

no cause should consist of an infinite number of causes, because, if he conceded that this was impossible, he would be denying the possibility of an infinity of causes, whereas he only wants to show that the philosophers' deduction of a necessary being is a *petitio principii*.[1]

Then Ghazali says:

To say that it is impossible would be like saying that it is impossible that what is eternal should be made up of what is temporal, for time, according to you philosophers, is eternal, but the individual circular movements are temporal and have initial terms; therefore that which has no initial term consists of entities having initial terms, and it is true of the single units that they have a beginning, but not true of them collectively. In the same way it can be said of each term of the causal series that it has a cause, but not of the series as a whole. And so not everything that is true of single units is true of their collectivity, for it is true of each single unit that it is one and a portion and a part, but not true of their collectivity.

I say:

Ghazali means that it is not impossible that what has no cause 282
should consist of infinite effects in the way the eternal, according to the philosophers, consists of temporal entities, which are infinite in number. For time, according to the philosophers, is eternal, and consists of limited temporal parts, and likewise the movement of heaven is eternal according to the philosophers, and the circular movements of which it consists are infinite. And the answer is that the existence of an eternal consisting of temporal parts, in so far as they are infinite in number, is not a philosophical principle; on the contrary they deny it most strongly, and only the materialists affirm it. For the sum must consist either of a finite number of transitory members or of an infinite number. If the former is the case, it is generally admitted that the members must also be generically transitory.[2] For the latter case there are two theories. The materialists believe that the totality is of a possible nature and that the collectivity must be eternal and without a cause.[3] The philosophers admit this infinity and believe that such genera, because they consist of possible transitory constituents, must necessarily have an external cause, lasting and eternal, from which they acquire their eternity.[4] It is not true either, as Ghazali seems to imply, that the philosophers believe that the impossibility of an infinite series of causes depends on the impossibility that the eternal should consist of an infinity of constituents.[5] They affirm that the eternity of these generically different movements must lead to one single movement, and that the reason

283 why there exist genera* which are transitory in their individuals, but eternal as a whole, is that there is an existent, eternal partly and totally, and this is the body of the heavens. The infinite movements are generically infinite only because of the one single continuous eternal movement of the body of the heavens. And only for the mind does the movement of heaven seem composed of many circular movements.[1] And the movement of the body of the heavens acquires its eternity—even if its particular movements are transitory—through a mover which must always move and through a body which also must always be moved and cannot stop in its motion, as happens with things which are moved in the sublunary world.

About genera there are three theories, that of those who say that all genera are transitory, because the individuals in them are finite, and that of those who say that there are genera which are eternal and have no first or last term, because they appear by their nature to have infinite individuals; the latter are divided into two groups: those, namely the philosophers, who say that such genera can only be truly said to be everlasting, because of one and the same necessary cause, without which they would perish on innumerable occasions in infinite time; and those, namely the materialists, who believe that the existence of the individuals of these genera is sufficient to make them eternal. It is important to take note of these three
284 theories, for the whole controversy about the eternity or non-eternity of the world, and whether the world has an agent or not, is based on these fundamental propositions. The theologians and those who believe in a temporal creation of the world are at one extreme, the materialists at the other, while the philosophers hold an intermediate position.

If all this is once established, you will see that the proposition that the man who allows the existence of an infinite series of causes cannot admit a first cause is false, and that on the contrary the opposite is evident, namely, that the man who does not acknowledge infinite causes cannot prove the existence of an eternal first cause, since it is the existence of infinite effects which demands the necessity of an eternal cause from which the infinite causes acquire their existence; for if not, the genera, all of whose individuals are temporal, would be necessarily finite.[2] And in this and no other way can the eternal become the cause of temporal existents, and the existence of infinite temporal existents renders the existence of a single eternal first principle necessary, and there is no God but He.

Ghazali, answering this objection in the name of the philosophers, says:

The philosophers might say: The circular movements and the forms of the elements do not exist at the present moment; there actually exists only one single form of them, and what does not exist can be called neither finite nor infinite, unless one supposes them to exist in the imagination, 285 and things which are only suppositions in the mind cannot be regarded as impossible, even if certain of these suppositions are supposed to be causes of other suppositions;[1] for man assumes this only in his imagination, and the discussion refers only to things in reality, not to things in the mind.[2] The only difficulty concerns the souls of the dead and, indeed, some philosophers[3] have arrived at the theory that there is only one eternal soul before it is united with bodies, and that after its separation from the bodies it becomes one again, so that it has no numerical quantity and can cer- 5 tainly not be called infinite. Other philosophers have thought that the soul follows from the constitution of the body, that death is nothing but the annihilation of the soul, and that the soul cannot subsist by itself without the body. In that case souls have no existence except in respect of the living, and the living are beings limited in number, and their finitude is not denied, and those that have ceased to exist cannot be qualified at all, either by finitude or by infinity, except when they are supposed to exist in imagination.

Then Ghazali says:

We answer: This difficulty about the souls has come to us from 10 Avicenna and Farabi and the most acknowledged philosophers, since they concluded that the soul was a substance subsistent by itself; and this is also the view taken by Aristotle and by the commentators on the ancient philosophers. And to those philosophers who turn aside from this doctrine[4] we say: Can you imagine that at each moment something comes into being which will last for ever? A negative answer is impossible, and if they admit this possibility, we say: If you imagine that every day some new thing comes into being and continues to exist, then up to the present moment there will have been an infinite collection of existents and, even if the circular movement itself comes to an end, the lasting and endless existence of what has come into being during its revolution is not impossible. In this way this difficulty is firmly established, and it is quite irrelevant whether this survival concerns the soul of a man or a Jinni, the soul of a devil or an angel, or of any being whatever. And this is a necessary consequence of every philosophical theory which admits an infinity of circular movements.

I say:

The answer which he gives in the name of the philosophers, that 286 the past revolutions and the past forms of the elements which have come from each other[5] are non-existent, and that the non-existent

can be called neither finite nor infinite, is not a true one. And as to the difficulty he raises against them as to their theory about souls, no such theory is held by any philosophers, and the transference of one problem to another is a sophistical artifice.

287 THE FIFTH DISCUSSION

To show their incapacity to prove God's unity and the impossibility of two necessary existents both without a cause

Ghazali says:

The philosophers have two proofs of this. The first is to say, 'If there were two necessary existents, the species of necessary existence would be attributed to them both.[1] But what is said to be a necessary existent must either be so through itself, and cannot be imagined to be so through another, or it must be so through a cause, and the essence of the necessary existent will be an effect; and its cause then determines its necessity of existence.' 'But', say the philosophers, 'we understand by "necessary existent" only an entity whose existence has no connexion with a cause.'[2] And the philosophers affirm that the species 'man' is asserted of Zaid and of Amr and that Zaid is not a man through himself—for in that case Amr would not be a man—but through a cause which makes both him and Amr a man; and the plurality of men arises from the plurality of matter in which humanity inheres, and its inherence in matter is an effect which does not lie in the essence of humanity.[3] The same is the case with necessary existence in respect to the necessary existent: if it is through itself
288 a necessary existent, it must possess this qualification exclusively, and if it exists because of a cause, it is an effect and cannot be a necessary existent. And from this it is clear that the necessary existent must needs be one.

To this Ghazali objects and says:

We say: Your statement that the species of necessary existence must belong to the necessary existent either through the necessary existent itself or through a cause is a self-contradictory disjunction, for we have already shown that the expression 'necessary existence' is obscure, unless we mean by it the denial of a cause, and so let us rather use* the term which is really meant by it and say: To admit two existents without a cause, and without the one's being a cause of the other, is not impossible. And your statement that what has no cause has none, either because of its own essence or through some cause, is a faulty disjunction, for one

does not ask for the cause of a thing which is said to have no cause and to need no cause for its existence. And what sense is there in the statement that what has no cause has no cause either because of its own essence or through a cause? For to say 'no cause' is an absolute negation, and an absolute non-entity has no cause, and cannot be said to exist either by its own essence or not by its own essence. But if you mean by 'necessary existence' a positive qualification of the necessary existent, besides its being an existent without a cause for its existence, it is quite obscure what this meaning is. But the genuine meaning of this word is the negation of a cause for its existence, and this is an absolute negation about which it cannot be said that it is due to its essence or to a cause, such that the intended proof might be based on the supposition of this disjunction. To regard this as a proof is senseless and has no foundation whatever. On the contrary, we say that the meaning of its necessity is that it has no cause for its existence and no cause for its coming into existence, without there being any cause whatever for this; its being without a cause is, again, not caused by its essence; no, the fact that there is no cause for its existence and no cause for its being, has itself no cause whatsoever. This disjunction cannot be applied even to positive qualities, not to speak of that which is really equivalent to a negation. For suppose one were to say: 'Black is a colour because of its essence or through a cause, and if it is a colour because of its essence, then red cannot be a colour, and then the species of colouredness 289 can exist only because of the essence of black; if, however, black is a colour because of a cause which has made it a colour, then black can be thought of as being without a colour, i.e. as not having been made a colour by a cause, for a determination added to an essence through a cause* can be represented in the imagination as absent, even if it exists in reality.'[1] 'But', it will be objected, 'this disjunction is false in itself, for one cannot say of black that it is a colour because of its essence, meaning by this that it cannot be through anything but its essence, and in the same way one cannot say that this existent is necessary because of its essence, i.e. that it has no cause because of its own essence, meaning by this that it cannot exist through anything but its essence.'

I say:

This method of proving the unity of God is peculiar to Avicenna, and is not found in any of the ancient philosophers; its premisses are common-sense premisses, and the terms are used in a more or less equivocal way. For this reason many objections can be urged against it. Still, when those terms and the aim they intend are properly analysed, this statement comes near to being a proof.

That this primary disjunction is faulty, as Ghazali asserts, is not true. He says that the meaning of 'necessary existent' is 'that which has no cause', and that the statement 'that what has no cause, has

no cause, either because of its own essence or through another cause', and similarly the statement 'that the necessary existent is a necessary existent, either because of its own essence or through another cause' are meaningless statements. But this is by no means the case. For the meaning of this disjunction is only whether the necessary existent is such, because of a nature which characterizes it, in so far as it is
290 numerically one,[1] or because of a nature which it has in common with others—for instance, when we say that Amr is a man because he is Amr, or because of a nature he has in common with Khalid. If he is a man because he is Amr, then humanity does not exist in anyone else, and if he is a man because of a general nature, then he is
5 composed of two natures, a general one and a special one and the compound is an effect; but the necessary existent has no cause, and therefore the necessary existent is unique. And when Avicenna's statement is given in this form it is true.

And Ghazali's words:

> and an absolute non-entity has no cause and it cannot be said to exist either by its own essence or not by its own essence

form a statement which is not true either. For there are two kinds of negation, the negation of a particular quality, proper to something
10 (and this kind of negation must be understood in respect of the words 'by its own essence' used in this statement), and the negation of a quality, not particular to something (and this kind of negation must be understood here in respect of the term 'cause').[2] Ghazali affirms that this disjunction is not even true of positive qualities and therefore certainly not of negative and he objects to this disjunction by giving as an example black and colouredness. And he means that when we say of black that it is a colour, either because of its essence
291 or through a cause, neither alternative can be true, and both are false. For if black were a cause, because of its essence, red could not be a colour, just as if Amr were a man because of his essence, Khalid could not be a man; on the other hand, if black were a colour through a cause, colour would have to be an addition to its essence, and an essence which receives an addition can be represented without this
5 addition, and therefore this assumption would imply that black could be represented without colouredness, and this is absurd. But this argument of Ghazali is erroneous and sophistical, because of the equivocation in the terms 'essence' and 'cause'. For if by 'by its essence' is understood the opposite of 'by accident', our statement

that black is a colour because of its essence is true, and at the same time it is not impossible that other things, red for instance, should be colours. And if by 'cause', in the expression that black is a colour through a cause, is understood something additional to its essence, i.e. that it is a colour through a cause external to black, it does not follow that black can be represented without colouredness. For the genus is an addition to the specific quality and the species, and the species or the specific quality cannot be represented without the genus, and only an accidental additional quality—not the essential additional quality—can be represented without the genus. And therefore our statement that black is a colour either because of its essence or through a cause is a disjunction of which, indeed, one of the alternatives must be true, i.e. black must be a colour either by black itself or through an entity additional to black. And this is what 292
Avicenna meant by his assertion that the necessary existent must be a necessary existent, either through its own special character or through an addition which is not peculiar to it; if through the former, there cannot be two existents which are both necessary existents; if through the latter, both existents must be composed of a universal and of a peculiar entity, and the compound is not a necessary existent through itself. And if this is true, the words of Ghazali: 'What prevents us from representing two existents which should both be of a necessary existence?' are absurd.

And if it is objected, 'You have said that this statement comes near being a proof, but it seems to be a proper proof', we answer: We said this only because this proof seems to imply that the difference between those two assumed necessary existents must lie either in their particularity, and then they participate in their specific quality, or in their species, and then they participate in their generic quality, and both these differences are found only in compounds, and the insufficiency of this proof lies in this, that it has been demonstrated that there are existents which are differentiated, although they are simple and differ neither in species nor individually, namely, the separate intellects.[1] However, it appears from their nature that there must be in their existence a priority and posteriority of rank, for no other 293
differentiation can be imagined in them. Avicenna's proof about the necessary existent must be therefore completed in this way: If there were two necessary existents, the difference between them must consist either in a numerical difference, or in a specific difference, or in rank.[2] In the first case they would agree in species; in the second case

in genus, and in both cases the necessary existent would have to be composite. In the third case, however, the necessary existent will have to be one, and will be the cause of all the separate existents. And this is the truth, and the necessary existent is therefore one. For there is only this tripartite disjunction, two members of which are false, and therefore the third case, which necessitates the absolute uniqueness of the necessary existent, is the true one.[1]

Ghazali says:

The second proof of the philosophers[2] is that they say: If we assumed two necessary existents, they would have to be similar in every way or different. If they were similar in every way, they could not be thought to be a plurality or a duality, since two blacks can have only a duality, when they are in two places, or in one place at different times, for black and movement can only exist in one place and be two at the same time, because they differ essentially. When the two essences, like the two blacks, do not differ and at the same time are simultaneous and in one place, they cannot be thought to be a plurality; if one could speak of two simultaneous
294 blacks as being in the same place, any individual could be said to be two, although not the slightest difference could be perceived between the two. Since they cannot be absolutely similar, they must* be different, but they cannot differ in time or in place, and they can therefore only differ in essence. But two things which differ in something must either participate in something or not participate in anything. The latter is impossible, for it would mean that they would participate neither in existence,[3] nor in the necessity of existence, nor in being subsistent in themselves and not inhering in a substratum. But if they agree in something and differ in something, that in which they agree must be different from that through which they differ; there will therefore be composition in them, and it will be possible to analyse them in thought. But there is no composition in the necessary existent, and just as it cannot be divided quantitatively, so it cannot be analysed by thought either, for its essence is not composed of elements which intellectual analysis could enumerate.[4] The words 'animal' and 'rational', for instance, mean that which constitutes the essence of man, namely, animal and rational, and what is meant by the word 'animal' when one speaks of a man is different from what is meant by 'rational', and therefore man is composed of parts which are ordered in the definition by words which indicate these parts, and the term 'man' is applied to the whole of them*.[5] This composition, however, cannot be imagined in the necessary existent, while duality cannot be imagined except in this way.

The answer is that we concede that duality can only be imagined where there is a differentiation, and that in two things, similar in every way, no difference can be imagined. But your statement that this kind of

composition is impossible in the First Principle is a mere presumption, and where is your proof of it?

Let us now treat this problem in detail. It belongs to their well-known theories that the First Principle can as little be analysed intellectually as divided quantitatively, and on this fundamental truth, according to the philosophers, the uniqueness of God must be based.

I say: 295

Ghazali does not know the mistake which is in this second proof, and he begins to discuss with the philosophers the question to which they give a negative answer, namely, if one may introduce a plurality into the definition of the necessary existent. He wants* to consider this problem in detail, since the Ash'arites allow a plurality in God, regarding Him as an essence with attributes.[1] The mistake in this second proof is that two different things can be essentially different and have nothing in common but their name, in the case where they have no common genus, either proximate or remote, for instance, the term 'body', attributed by the philosophers to both the body of the heavens and the transitory body, and the term 'intellect' attributed to the intellect of man and the separate intellects, and the term 'existent' attributed to transitory things and to eternal. Such terms must be regarded as equivocal rather than as univocal, and therefore it does not follow that things which are differentiated must be composite.[2] And since Ghazali, in his answer to this proof of the philosophers, limits himself in the way he has indicated, he begins first by stating their theory of God's unity and then tries to refute the philosophers.

Ghazali, expounding the philosophical theory, says: 296

For the philosophers assert that God's unity can only be perfected by establishing the singleness of God's essence in every way, and by the denial of any possible plurality in Him. Now plurality can belong to things in five ways.[3]

First, to what can undergo division actually or in imagination, and therefore the single body is not absolutely one—it is one through the continuity which exists in it, which can suffer a decrease and can be quantitatively divided in imagination. This is impossible in the First Principle.

Secondly: a thing may be divided by thought, not quantitatively, into two different concepts, as for instance the division of body into matter and form, for although neither matter nor form can subsist separately, they are two different things in definition and in reality, and it is by their composition that a unity results, namely body. This also must be denied of God, for God cannot be a form or a matter* in a body, or be the compound of both. There are two reasons why God cannot be their compound,

first because this compound can be divided into quantitative parts, actually or in imagination, secondly, because this compound can be divided conceptually into form and matter, and God cannot be matter, because matter needs a form, and the necessary existent is self-sufficient in every respect and its existence cannot be conjoined with the condition of something else besides it, and God cannot be form, because form needs matter.

Thirdly: the plurality through attributes implied in knowledge, power, and will;[1] if these attributes had a necessary existence, the essence and these attributes would participate in necessary existence and the necessary existent must be a plurality, and its uniqueness would be denied.

Fourthly: the rational plurality which results from the composition of genus and species. For black is black and colour, and blackness is not colouredness for the intellect, but colouredness is a genus, and blackness a specific difference, and therefore black is composed of genus and species; and animality is for the mind something different from humanity, for man is a rational animal, animal is a genus and rational a specific differ-
297 ence, and man is composed of genus and species, and this is a kind of plurality, and the philosophers affirmed that this kind also must be denied of the First Principle.

Fifthly: the plurality which results from the duality of a quiddity and the existence of this quiddity; for man before his existence has a quiddity, and existence occurs to it and enters into relation with it, and in this
5 way the triangle has a quiddity, namely, it is a figure surrounded by three sides, and existence is not a component of this quiddity, and therefore the intellect can perceive the quiddity of man and the quiddity of a triangle without knowing whether they exist in the external world or not.[2] If existence were a component of the quiddity to which it is added, the fixation of this quiddity in the mind before its existence could not be imagined. Existence stands in a relation to quiddity, whether in a necessary inseparable relation, for instance, heaven, or in an accidental relation occurring after a thing's non-existence, like the quiddity of man in respect of Zaid or Amr and the quiddity of accidents and forms which occur.[3] And the philo-
10 sophers affirm that this kind of plurality also must be denied of the First Principle. They say that the First Principle has no quiddity to which existence is joined, but existence is necessary to it, as is quiddity to the other entities.[4] Therefore necessary existence is at once a quiddity, a universal reality and a real nature, in the same way as a man, a tree, and heaven are quiddities.[5] For if the necessary existent needed a quiddity for its existence, it would be consequent on this essence and would not constitute it, and the consequent is something secondary and an effect, so that the necessary existent would be an effect, and that would be in opposition to its being necessary.

I say:

These are the theories of the philosophers which Ghazali men-

tions on the subject of their denial of plurality in the Monad. Then he begins to show how they contradict themselves on this question. We must now first examine these statements which he ascribes to them, and explain the degree of consent they reach; we shall then 298 investigate* the contradictions of the philosophers which he mentions, and his methods of opposing them on this problem.

The first kind of division which, according to Ghazali, the philosophers deny of the First Principle, is the quantitative division, either in supposition or in reality. Everyone who believes that the First Prin- 5 ciple is not a body, whether he believes that a body is composed of atoms or not, agrees about this. The proof of this is that the First Principle is not a body, and its discussion will follow.

The second kind is the qualitative division, like the division of body into matter and form, and this according to the doctrine of those, namely, the philosophers, who believe that body is composed of matter and form and this is not the place to discuss the truth of either 10 of these theories. This division also is denied of the First Principle by everyone who believes that the First Principle is not body. As to the denial of the corporeality of the First Principle in so far as it is essentially a necessary existent, the discussion of this will follow later, when we give a complete account of the whole argument used in this matter. For as to Ghazali's words that the necessary existent does not need another, i.e. it does not consist of anything else, but that body consists of form and matter and neither of them are necessary existents, for form cannot dispense with matter and matter cannot dispense with form—there is here a problem; for according to the 299 philosophers the body of the heavens is not composed of matter and form, but is simple, and it has sometimes been thought that it is a necessary existent by its own essence; but this problem will be treated later, and I do not know of any philosopher who has believed that the body of the heavens is composed of matter and form, with the sole exception of Avicenna. We have already spoken on this question in 5 another place,[1] and shall discuss it still later on.

The third kind is the denial of the plurality of attributes in the necessary existent, for if these attributes were of a necessary existence, the necessary existent would be more than one, since the essence also is a necessary existent. And if the attributes were caused by the essence, they could not be necessary existents, and attributes of 10 the necessary existent would not be necessary existents, otherwise the term 'necessary existent' would comprise the necessary existent and

that which is not a necessary existent, and this is impossible and absurd. And this is a proof which comes very near to being an absolute truth, when it is conceded that the 'necessary existent' must indicate an immaterial existent, and in such existents, which subsist by themselves without being bodies, there cannot be imagined essential attributes of which their essence is constituted, not to speak of attributes which are additional to their essence, that is, the so-called accidents,
300 for when accidents are imagined to be removed, the essence remains, which is not the case with the essential attributes. And therefore it is right to attribute essential attributes to their subject, since they constitute its identity,[1] but it is not right to attribute non-essential attributes to it, except through derivative words,[2] for we do not say of a man that he is knowledge, but we only say that he is an animal and that he is knowing;[3] however, the existence of such attributes in what
5 is incorporeal is impossible, since the nature of these attributes is extraneous to their subject, and for this reason they are called accidents and are distinct from what is attributed essentially to the subject, be it a subject in the soul or in the external world. If it is objected that the philosophers believe that there are such attributes in the soul, since they believe that the soul can perceive, will, and
10 move, although at the same time they hold that the soul is incorporeal, we answer that they do not mean that these attributes are additional to the essence, but that they are essential attributes, and it is of the nature of essential attributes not to multiply the substratum which actually supports them; they are a plurality only in the sense that the thing defined becomes a plurality through the parts of the definitions, that is, they are only a subjective plurality in the mind according to the philosophers, not an actual plurality outside the soul. For instance, the definition of man is 'rational animal', but
301 reason and life are not actually distinguishable from each other outside the soul in the way colour and shape are. And therefore he who concedes that matter is not a condition for the existence of the soul must concede that in the separate existences there is a real oneness existing outside the soul, although this oneness becomes a plurality
5 through definition.[4] This is the doctrine of the Christians concerning the three hypostases in the divine Nature. They do not believe that they are attributes additional to the essence, but according to them they are only a plurality in the definition—they are a potential, not an actual, plurality. Therefore they say that the three are one, i.e. one in act and three in potency.[5] We shall enumerate later the repre-

hensible consequences and absurdities which arise from the doctrine that the First Principle possesses attributes additional to His essence.

The fourth kind of plurality is that which occurs to a thing because of its genus and specific difference; this plurality comes very near to that which belongs to a thing because of its matter and form, for there are only definitions for that which is composed of matter and form, and not for simple, non-compound things, and nobody need disagree about denying a plurality through definition to the First Principle.

The fifth kind of plurality is the plurality of essence and existence. 302
Existence in the nature of things is a logical concept which affirms the conformity of a thing outside the soul with what is inside the soul.[1] Its meaning is synonymous with the true, and it is this that is meant by the copula in categorical propositions.[2] The term 'existence' is used in two senses; the first synonymous with the true, when we ask, for instance, if something exists or not, or whether a certain thing has such and such a quality or not.[3] The second sense stands in relation to the existing things as their genus, in the way the existent is divided into the ten categories, and into substance and accident.[4] When by existent is understood the true, there is no plurality outside the soul:[5] when by existent is understood what is understood by entity and thing,[6] the term 'existent' is attributed essentially to God and analogically to all other things in the way warmth is attributed to fire and to all warm things.[7] This is the theory of the philosophers.

But Ghazali based his discussion on the doctrine of Avicenna, and this is a false doctrine, for Avicenna believed that existence is something additional to the essence outside the soul and is like an accident of the essence. And if existence were a condition for the being of the essence and a condition for the essence of the necessary existent, the necessary existent would be composed of the conditioning and the 303
conditioned and it would be of a possible existence. Avicenna affirms also that what exists as an addition to its essence has a cause. Now, existence for Avicenna is an accident which supervenes on the essence,[8] and to this Ghazali refers when he says:

> For man before his existence has a quiddity and existence occurs to it and enters into relation with it, and in this way the triangle has a quiddity, namely, it is a figure surrounded by three sides, and existence is not a component of this quiddity, and therefore the intellect can perceive the quiddity of man and the quiddity of a triangle without knowing whether they exist in the exterior world or not.

This shows that the term 'existence' which he uses here is not the
10 term which signifies the most universal genus of all entities, nor the term which indicates that a thing exists outside the soul. For the term 'existence' is used in two meanings, the former signifies the true and the latter the opposite of non-existence, and in this latter sense it is that which is divided into the ten categories and is like their genus. This essential sense which refers to the things which exist in the real world outside the soul is prior to the sense it has in the existents of second intention,[1] and it is this sense which is predicated of the ten categories analogically, and it is in this sense that we say of the substance that it exists by itself and of the accident that it exists through its existing in the existent which subsists by itself. As to the existent which has the meaning of the 'true', all the categories
304 participate in it in the same way,[2] and the existent which has the meaning of the 'true' is something in the mind, namely that a thing is outside the soul in conformity with what it is inside the soul,[3] and the knowledge of this is prior to the knowledge of its quiddity; that is, knowledge of the quiddity of a thing cannot be asked for, unless it is known that it exists.[4] And as to those quiddities which precede
5 in our minds the knowledge of their existence, they are not really quiddities, but only nominal definitions, and only when it is known that their meaning exists outside the soul does it become known that they are quiddities and definitions. And in this sense it is said in the book of the *Categories* that the intelligible universals of things become existent through their particulars, and that the particulars become intelligible through their universals.[5] And it is said in the *De Anima* that the faculty by which it is perceived that a thing is a definite
10 particular and exists is another faculty than the faculty by which the quiddity of the definite particular is perceived,[6] and it is in this way that it is said that particulars exist in the external world and universals in the mind.[7] And there is no difference in the meaning of the 'true', whether it concerns material existents or separate existents. The theory that existence is an addition to the quiddity and that the existent in its essence does not subsist by it[8]—and this is the theory of Avicenna—is a most erroneous theory, for this would imply that the term 'existence' signified an accident outside the soul common to the ten categories. And then it can be asked about this
305 accident when it is said to exist, if 'exist' is taken here in the meaning of the 'true' or whether it is meant that an accident exists in this accident, and so on *ad infinitum*, which is absurd, as we have shown

elsewhere.[1] I believe that it is this meaning of 'existence' which Ghazali tried to deny of the First Principle, and indeed in this sense it must be denied of all existents and *a fortiori* of the First Principle, since it is a false theory.

Having mentioned this sense of unity in the statements of the philosophers, Ghazali now proceeds to describe the ways in which they contradict themselves in his opinion, and he says:

Now notwithstanding all this, the philosophers affirm of God that He is the First and a principle, an existent, a substance, a monad, that He is eternal, everlasting, knowledge and knower and known, an agent and a creator, that He is endowed with will and power and life, that He is the lover and the beloved, the enjoyer and the enjoyed, that He is generous, and the absolute good, and they believe that all this is meant by the term 'one', and does not imply any plurality. And this indeed is something very wonderful.

Now we must first state their theory clearly in order to understand it well, and then we shall occupy ourselves with its refutation, for it is an absurd undertaking to refute a theory before it is well understood. Now the central point for the understanding of their doctrine is that they say that the essence of the Principle is one, and the plurality of terms arises only through bringing something in relation to it or through bringing it in relation to something, or through denying something of it; for the negation of something does not cause a plurality in that of which it is denied, nor does the establishment of a relation produce a plurality.[2] Therefore they 306
do not deny the plurality of the negations and the relations, and it is thus their task to refer all the qualities mentioned to negation and relation.

They say that when God is said to be the First this means a relation to all the existents after Him. When He is said to be a principle, it signifies that the existence of everything else depends on Him and is caused by Him; it means therefore a relation to an effect. And when He is said to exist, it means that He is apprehended,[3] and when He is said to be a substance it means that He is the being of which it is denied that it inheres in a substratum and this is a negation.[4] When He is said to be eternal, it means that His non-existence in the past is denied; and when He is said to be everlasting, it means that His non-existence in the future is denied, and the terms 'eternal' and 'everlasting' are reduced to an existence not preceded nor followed by a non-existence. When He is said to be a necessary existent, it means that there is no cause for His existence and that He is the cause of everything else, and this is a combination of negation and relation: the denial of a cause for His existence is a negation, and making Him the cause of everything else is a relation.

When He is said to be intellect, this means that He is free from matter and everything free from matter is intellect, i.e. thinks its own substance, is self-conscious, and knows everything else, and the essence of God is such:

He is free from matter and therefore—for these two expressions have the same meaning—He is an intellect.[1] When He is said to be knowing, it means that His essence which is intellect has an object of thought, namely His essence, for He is self-conscious and knows His own self, and His essence is the known and the knower for all that is one, since He is the known in so far as He is a quiddity, abstract from matter, not hidden from His essence which is intellect in the sense that it is a quiddity abstract from matter, from which nothing is hidden; and because He thinks His own self, He is knowing, and because He is His own object of thought, He is an object known, and since He thinks through* His own essence, not through something additional to His own essence, He is intellect, and it is not impossible that the knower and the thing known should be one, for the knower, when he knows that he knows, knows it because he is a knower,[2] so that knower and known are in a way the same; although our intellect is in this respect different from the intellect of the First Principle, for the intellect of the First Principle is eternally in act, whereas our intellect is sometimes in potency, sometimes in act.[3] And when He is said to be a creator, an agent and an originator and to have the other attributes of action, it means that His existence is eminent, from which the existence of the universe emanates in a necessary emanation, and that the existence of everything derives from Him and is consequent on His existence in the way that light is consequent on the sun and heat consequent on fire. But the relation of the world to God resembles the relation of light to the sun only in this, that both are effects, and not in any other way, for the sun is not aware of the emanation of light from it, nor fire of the emanation of heat from it; for this is mere nature.[4] But the First is conscious of Himself and is aware that His essence is the principle of everything else, and the emanation of everything which emanates from Him is known to Him, and He is not inattentive to anything that proceeds from Him.

307 Nor can He be compared to one of us who puts himself between a sick man and the sun, for then it is the case that because of him, but not through his choice (although he does it consciously and not unwillingly either), the sick man is protected against the sun's heat, and it is his body which causes the shadow, but it is his soul, not his body, which knows that the shadow is falling and is pleased about it. But this does not apply to the First: in Him the agent is at the same time the knower and the one that is pleased; that is, He is not unwilling, and He is conscious that His perfection consists in the emanation proceeding from Him.[5] Yes, even if it were possible to assume that the man's body causing the shadow were identical with the knower of the shadow, who is pleased with it, even then he would not be similar to the First. For the First is both knower and agent, and His knowledge is the principle of His act; and His consciousness of Himself as the principle of the universe is the cause of the emanation of the universe and the existing order; and the existing order is the consequence of the order thought of, in the sense that it occurs through Him and that

He is the agent of the universe without there being an addition to His knowledge of the universe, since His knowledge of the universe is the cause of the emanation of the universe from Him, and His knowledge of the universe does not add anything to His self-consciousness, for He could not be self-conscious if He did not know that He is the principle of the universe, the object of His knowledge is in first intention His own essence, and the universe is the object of His knowledge in second intention,[1] and this is the meaning of His being an agent. And when it is said that He has power, nothing is meant but that He is an agent in the way we have stated, namely, that His existence is the existence from which the powers emanate through the emanation of which the arrangement of the world is ordered in the most perfect way possible in accomplishment and beauty.[2] And when it is said that He is willing, nothing is meant but that He is not inattentive to what emanates from Him and that He is not opposed to it; no, He knows that in the emanation of the universe His own perfection is attained, and it is permissible to say in this sense that He is satisfied, and it is permissible to say of the satisfied that He is willing; and His will is nothing but His very power and His power is nothing but His very knowledge and His knowledge nothing but His very essence, so that everything is reduced to His very essence. For His knowledge of things is not derived from things, for otherwise He would acquire His quality and perfection through another, and this is impossible in the necessary existent. But our knowledge is twofold: partly knowledge of a thing which results from its form like our knowledge of the form of heaven and earth, partly knowledge of our own invention, when we represent in ourselves the form of a thing we do not see and then produce it; in this case the existence of the form is derived from the knowledge and not the knowledge from the existence.[3] Now the knowledge the First has is of the second category, for the representation of the order in Himself is the cause of the emanation of the order from Him.[4] Indeed, if the mere presence of the form of a picture or of writing in our souls were sufficient for the occurrence of this form, then our knowledge would be identical with our power and our will;[5] but through our deficiency our representation does not suffice to produce the form, but we need besides a new act of will which results from our appetitive faculty, so that through these two the power which moves our muscles and our nerves in our organs can enter into motion, and through the movement of our muscles and nerves our hand or any other member can move, 308
and through its movement the pen or any other external instrument can come into motion and through the movement of the pen the matter, e.g. the ink, can move, and so the form is realized which we represented in our souls. Therefore the very existence of this form in our souls is not a power and an act of will; no, in us power lies in the principle which moves our muscles and this form moves the mover which is the principle of the power.[6] But this is not the case with the necessary existent, for He is not composed of bodies from which the powers in His extremities

originate, and so His power, His will, His knowledge, and His essence are all one.

When it is said that He is living,[1] nothing is meant but that He is conscious of the knowledge through which the existent which is called His act emanates from Him. For the living is the doer, the perceiver, and the meaning of the term is His essence in relation to His acts in the way we have described, not at all like our life, which can be only perfected through two different faculties from which perception and action result. But His life again is His very essence.

And when it is said that He is generous, what is meant is that the universe emanates from Him, but not for an end which refers to Himself,[2] for generosity is perfected by two conditions: first that the receiver of the benefit has profit of what is given to him, for* the giving of something to one who is not in need of it is not called generosity; secondly, that the benefactor is not himself in need of generosity, so that he himself becomes a benefactor through a need he experiences himself, and anyone who is generous out of a desire for praise and approbation or to avoid blame seeks a reward and is not generous.[3] But true generosity belongs to God alone, for He does not seek to avoid blame, nor does He desire a perfection acquired through praise, and the term 'generosity' indicates His existence in relation to His act and with the denial of an end, and this does not imply a plurality in His essence.

When He is said to be the absolute good, it means that His existence is free from any imperfection and from any possibility of non-existence, for badness has no essence, but refers to the non-existence of an essence or to the absence of the goodness of the essence.[4] For existence itself, in so far as it is existence, is good, and therefore this term refers* to the negation of the possibility of non-existence and of badness. Sometimes 'good' means that which is the cause of the order in things, and the First is the principle of the order of everything and therefore He is good;[5] and in this case the term signifies existence in a certain kind of relation.

When He is said to be a necessary existent, this existence is meant with the denial of a cause for His existence and the impossibility of a cause for His non-existence, in the beginning and at the end.

When it is said that He is the lover and the beloved,[6] the enjoyer and the enjoyed,[7] it means that He is every beauty and splendour and
309 perfection, and that He is beloved and desired by the possessor of this perfection and the only meaning of 'enjoyment' is the perception of appropriate perfection. If it could be imagined of a single man that he knew his own perfection in comprehending all intelligibles, if he could comprehend them, that he knew the beauty of his own form, the perfection of his power, the strength of his limbs, in short if he perceived in himself the presence of all perfection of which he was capable, he would love his perfection and enjoy it, and his enjoyment would only be incomplete through the possibility of its loss and its diminution, for the joy which refers to the

transitory, or to what is feared to be transitory, is not perfect.[1] But the First possesses the most perfect splendour and the most complete beauty, since all perfection is possible to Him and present in Him, and He perceives this beauty, secure against the possibility of its diminution and loss, and the perfection He possesses is superior to all perfection, and His love and His enjoyment of this perfection are superior to all love and to all enjoyment, and His enjoyment cannot be compared in any way to our enjoyment and is too glorious to be called enjoyment, joy, and delight, for we have no expressions for such concepts, and using these terms metaphorically for Him, we must be conscious of the great difference, just as when we apply to Him metaphorically our terms, 'willing', choosing', 'acting', we are convinced of the great distance between His will, power, and knowledge, from our will, power, and knowledge, and it is not impossible that this term 'enjoyment' should be regarded as improper and that another term should be used.[2] What we want to express is that His state is more glorious than the conditions of the angels, and more desirable, and the condition of the angels is more glorious than our condition; and if there were no other joy than in bodily desire and sex, the condition of the ass and the pig would be superior to the state of the angels, but the angels, who are separate from matter, have no other joy than the joy arising from the knowledge of their share in perfection and beauty, the cessation of which is not to be feared. But the joy of the First is superior to the joy of the angels, and the existence of the angels which are intellects separate from matter is possible in its essence and necessary of existence through another, and the possibility of non-existence is a kind of badness and imperfection, and nothing is absolutely free from badness except the First, and He is the absolute good and He possesses the utmost splendour and beauty; further, He is the beloved, whether anyone else loves Him or not, as He is the knower and the known, whether anyone else knows Him or not. And all these concepts refer to His essence and to His perception and to His knowledge of His essence, and the knowledge of His essence is His very essence, for He is pure intellect, and all this leads back to one single notion.

This is the way to set forth their doctrine, and these things can be divided into that which may be believed (but we shall show that according to their own principles they must regard it as untrue) and into that which may not be believed (and we shall show its falsehood). We shall now return to the five classes of plurality and to their claim to deny them, and **310** shall show their inability to establish their proof, and shall treat each question separately.

I say:

The greater part of what he mentions in his description of the philosophical theories about God as being one, notwithstanding the plurality of attributes ascribed to Him, he has stated accurately, and

we shall not argue with him about it, with the exception of his statement that to Him the designation of 'intellect' is a negation;[1] for this is not true—on the contrary it is the most special appellation for His essence according to the Peripatetics, in contrast to Plato's opinion that the intellect is not the First Principle and that intellect cannot be attributed to the First Principle.[2] Nor is his statement that in the separate intellects there is potency, non-existence, and badness a philosophical theory. But we shall now return to his refutations in these five questions.

311

THE SIXTH DISCUSSION

To refute their denial of attributes

Ghazali says:

The philosophers agree—exactly as do the Mu'tazilites—that it is impossible to ascribe to the First Principle knowledge, power, and will, and they affirm that we have received these terms through the Divine Law, and that they may be used as verbal expressions, but that they refer to one essence as we have explained previously, and that it is not permissible to accept an attribute additional to its essence in the way we may consider, as regards ourselves, our knowledge, power, and will, as attributes of ourselves, additional to our essence. And they affirm that this causes a plurality, because if these attributes are supposed to occur to us in the course of our development, we know that they are additional to our essence, because they constitute new facts*; on the other hand, if they are supposed to be simultaneous with our existence without any time-lag, their simultaneity does not prevent them from being an addition to our essence.[3] For when one thing is added to another and it is known that they are not identical, it is thought, even if they are simultaneous, that they are two. Therefore the fact that these qualities would be simultaneous with the essence of the First does not prevent them from being extraneous
312 to its essence, and this causes a plurality in the necessary existent, and this is impossible; and therefore they all agree in the denial of the attributes.

I say:

The difficulty for the man who denies a plurality of attributes consists in this: that different attributes are reduced to one essence, so that for instance knowledge, will, and power would mean one and the same thing and signify one single essence, and that also knowledge and knower, power and possessing power, will and willer

would have one and the same meaning. The difficulty for the man, however, who affirms that there exist both an essence and attributes additional to the essence, consists in this: that the essence becomes a condition for the existence of the attributes and the attributes a condition for the perfection of the essence, and that their combination would be a necessary existent, that is, one single existent in which there is neither cause nor effect. And this latter difficulty cannot be really solved when it is assumed that there exists an essentially necessary existent, for this implies that it must be one in every way and can in no way be composed of the condition and the conditioned and of cause and effect, for such a composition would have to be either necessary or possible; (1) if necessary, it would be necessary through another, not through itself, since it is difficult to assume an eternal compound as existing through itself, i.e. as not having a cause for its composition, and this is especially difficult for the man who believes that every accident is temporal,[1] since the fact of being a 313
compound would be an eternal accident; (2) if possible, a cause would be needed to join together the effect and the cause. Now, according to philosophical principles it is quite impossible that there should be a compound existing by itself, having eternal attributes, since the composition would be a condition of its existence; and its parts could not be agents for the composition, for the composition would have to be a condition for their existence. Therefore, when the parts of any natural compound are disjoined, their original name can be only applied to them equivocally, e.g. the term 'hand', used of the hand which is a part of the living man and the hand which has been cut off; and every compound is for Aristotle transitory and *a fortiori* cannot be without a cause.[2]

But as to the system of Avicenna, with its division of the necessary existent from the possible existent, it does not lead to the denial of an eternal compound; for when we assume that the possible ends in a necessary cause and that the necessary cause must either have a cause or not, and in the former case must end in a necessary existent which has no cause, this reasoning leads through the impossibility of an infinite regress to a necessary existence which has no efficient cause—not, however, to an existent which has no cause at all, for this existent might have a formal or a material cause, unless it is assumed that 314
everything which has matter and form, or in short every compound, must have an external cause; but this needs a proof which the demonstration based on the principle of the necessary existent does not

contain, even if we do not consider the mistake in it we have already mentioned. And for exactly the same reason the proof of the Ash'arites that every temporal occurrence needs a cause does not lead to an eternal First Principle which is not composite, but only to a First Principle which is not temporal.

As to the fact that knower and knowledge are one, it is not impossible, but necessary, that such pairs of things lead up to the unity of their concepts; e.g. if the knower knows through knowledge, that through which he becomes a knower is more apt to be a knower, for the quality which any thing acquires from another is in itself more apt to possess the concept which is acquired, e.g. if the living bodies in our sublunary world are not alive by themselves, but through a life which inheres in them, then necessarily this life through which the non-living acquires life is alive by itself, or there would be an infinite regress; and the same is the case with knowledge and the other attributes.[1]

Now, it cannot be denied that one essence can have many attributes related, negative, or imaginary, in different ways without this implying a plurality in the essence, e.g. that a thing is an existent and one and possible or* necessary,[2] for when the one identical entity is viewed in so far as something else proceeds from it, it is called capable and acting, and in so far as it is viewed as differentiating between two opposite acts, it is called willing, and in so far as it is viewed as perceiving its object, knowing, and in so far as it* is viewed as perceiving and as a cause of motion, it is called living, since the living is the perceiving and the self-moving.[3] What is impossible is only a single simple existence with a plurality of attributes, existing by themselves, and especially if these attributes should be essential and exist in act, and as to these attributes existing in potency, it is not impossible, according to the philosophers, that something should be one in act and a plurality in potency, and this is the case according to them, with the parts of the definition in their relation to the thing defined.[4]

And as to Ghazali's words:

> And they affirm that this causes a plurality . . . that they are two.

he means by them that the fact that these attributes are simultaneous with the essence does not prevent them from being necessarily a plurality by themselves, just as, if their existence were posterior to the essence, or if some of them were posterior to others, mind would not conceive them as being one.

After stating the view of the philosophers, Ghazali says: 316

But it must be said to the philosophers: How do you know the impossibility of plurality of this kind? for you are in opposition to all the Muslims, the Mu'tazilites excepted, and what is your proof of it? If someone says: 'Plurality is impossible, since the fact that the essence is regarded as one is equivalent to the impossibility of its having a plurality of attributes' this is just the point under discussion, and the impossibility is not self-evident, and a proof is needed. They have indeed two proofs. The first is that they say that, when subject and attribute are not identical, either both, subject and attribute, can exist independently of the other, or each will need the other, or only one of them will depend on the other. In the first case they will both be necessary existents, and this implies an absolute duality and is impossible. In the second case neither of them will be a necessary existent, because the meaning of a necessary existent is that it exists by itself and does not depend in any way on anything else, and when a thing requires something else, that other is its cause, since, if this other were annulled, its existence would be impossible and it would therefore exist not by itself but through another. In the third case the one which was dependent would be an effect and the necessary existent would be the other, on which it would be dependent, and that which was an effect would need a cause, and therefore this would necessarily involve connecting the essence of the necessary existent with a cause.[1]

I say:

When their opponents concede to the philosophers that there is an existent necessary by itself and that the meaning of the necessary existent is that it has no cause at all, neither in its essence through which it subsists, or through something external, they cannot escape the conclusion which the philosophers forced upon them: that if the attributes existed through the essence, the essence would be an existent necessary through itself, and the attributes would be necessary 317 through something different from themselves, and the essence of the necessary existent would exist by itself, but the attributes would be necessary through something different from themselves, and essence and attributes together would form a compound.[2] But the Ash'arites do not concede to the philosophers that the existence of a necessary existent, subsisting by itself, implies that it has no cause whatsoever, for their argument leads only to the denial of an efficient cause additional to the essence.[3]

Ghazali says:

The objection against this is to say: The case to be accepted is the last, but we have shown in the fifth discussion that you have no proof for your denial of the first case, that of absolute duality; what is affirmed by you

in the fifth discussion can only be justified by basing it upon your denial of plurality in this and the following discussions: how can you therefore base this discussion upon what* is itself the upshot of this discussion?[1] But the correct solution is to say: 'The essence does not need the attributes for its subsistence, whereas the attributes need a subject, as is the case with us ourselves.' There remains their statement that what is in need of something else is not a necessary existent.

One may ask them: Why do you make such a statement, if you understand by 'necessary existent' only that which has no efficient cause, and why is it impossible to say that, just as there is no agent for the essence of the necessary existent, which is eternal, there is no agent for its attributes, which are equally eternal? If, however, you understand by 'necessary existent' that which has no receptive cause, we answer that that is not implied in this conception of the necessary existent, which, according to this conception is all the same eternal and has no agent; and what is wrong with this conception?

If it is answered that the absolute necessary existent is that which has no efficient cause and no receptive cause,[2] for if a receptive cause for it were
318 conceded, it would be conceded that it was an effect—we say: To call the receptive essence a receptive cause[3] is one of your technical terms, and there is no proof of the real existence of a necessary existent corresponding to your terminology; all that is proved is that there must be a final term to the series of causes and effects, and no more, and this series can end in a unit with eternal attributes which have no more an agent than the essence itself, and are supposed to be in the essence itself. But let us put aside this term 'necessary existent', which is full of possible confusion. The proof indeed only demonstrates the end of the series and nothing more, and your further claims are pure presumption.

If it is said: In the same way as the series of efficient causes must have an end, the series of receptive causes must have an end, since if every existent needed a substratum to inhere in it and this substratum again needed a substratum, this would imply an infinite series, just as this would be the case if every existent needed a cause and this cause again another cause—we answer: You are perfectly right and for this very reason we say that the series has an end and that the attribute exists in its essence and that this essence does not exist in something else, just as our knowledge exists in our essence and our essence is its substratum, but does not exist itself in a substratum. The series of efficient causes comes to an end for the attribute at the same time as for the essence, since the attribute has an agent no more than the essence has, still the essence provided with this attribute does not cease to exist, although neither itself nor its attribute has a cause. As to the receptive causes, its series can only end in the essence, for how could the negation of a cause imply the negation of a substratum?[4] The proof does not demonstrate anything but the termination of the series, and every method by which this termination can be explained is sufficient

to establish the proof which demands the existence of the necessary existent. But if by 'necessary existent' is understood something besides the existent which has no efficient cause and which brings the causal series to an end, we do not by any means concede that this is necessary. And whenever the mind regards it as possible to acknowledge an eternal existent which has no cause for its existence, it regards it as possible to acknowledge an eternal subject for which there is no cause, either for its essence or for its attribute.

As to Ghazali's words:

We have shown in the fifth discussion that you have no proof for your denial of the first case, that of absolute duality; what is affirmed by you in the fifth discussion can only be justified by basing it upon your denial of 319
plurality.

I say:

Ghazali means the philosophers' denial that subject and attribute are both subsistent by themselves, for from this it follows that they are independent of each other and that both are independent gods, which is a dualistic theory, since there is no connexion through which attribute and subject could become a unity. And since the philoso- 5
phers used as an argument for the denial of this kind of plurality the fact that it has dualism as its consequence,[1] and a demonstration ought to proceed in the opposite sense, namely, that dualism would have to be denied, because of the impossibility of plurality, he says that their proof is circular and that they proved the principle by the conclusion.

Their objection, however, was not based upon the facts themselves, but on the theory of their opponents who deny dualism. And you 10
have learned in another place that there are two kinds of refutation, one based on the objective facts, the other based on the statement of the opponent, and although the former is the true kind of refutation, the second type may also be used.[2]

As to Ghazali's words:

But the correct solution is to say: 'The essence does not need the attributes for its subsistence, whereas the attributes need a subject, as is the 320
case with us ourselves.' There remains their statement that what is in need of another is not a necessary existent.

I say:

Ghazali means that, when this tripartite division which they use to deny plurality is submitted to them, the facts lead them to establish that (1) the necessary existent cannot be a compound of attribute

and subject; (2) the essence cannot be a plurality of attributes, for they cannot accept these things according to their principles. Then he starts to show that the impossibility which they strive to deduce from this division is not strict.

As to Ghazali's words:

> One may ask them: Why do you make such a statement, if you understand by 'necessary existent' only that which has no efficient cause, and why is it impossible to say that, just as there is no agent for the essence of the necessary existent, which is eternal, there is no agent for its attributes, which are equally eternal?

I say:

All this is an objection to Avicenna's method of denying the attributes by establishing the necessary existent which exists by itself, but in this question the most convincing method of showing the necessity of unity and forcing it as a consequence upon the Ash'arites is the method of the Mu'tazilites. For the latter understand by 'possible
321 existence' the truly possible,[1] and they believe that everything below the First Principle is such. Their opponents, the Ash'arites, accept this, and believe also that every possible has an agent, and that the series comes to an end through what is not possible in itself. The Mu'tazilites concede this to them, but they believe that from this concession it follows that the First, which is the final term of the series of possibility, is not a possible, and that this implies its absolute simplicity. The Ash'arites, however, say that the denial of true possibility does not imply simplicity, but only eternity and the absence of an efficient cause, and therefore there is among the Ash'arites no proof of the simplicity of the First through the proof based on the necessary existent.[2]

And Ghazali says:

> If it is answered that the absolute necessary existent is that which has no efficient cause and no receptive cause, for if a receptive cause for it were conceded, it would be conceded that it was an effect.

I say:

Ghazali means that, if the philosophers say that the proof has led to a necessary existent which has no efficient cause, it has, according to them, no receptive cause either, and that according to the philosophers the assumption of essence and attributes implies the assumption of a receptive cause.

322 Then Ghazali, answering this, says:

We say: To call the receptive essence a receptive cause is one of your technical terms, and there is no proof for the real existence of a necessary existent corresponding to your terminology; all that is proved is that there must be a final term to the series of causes and effects.

I say:

Ghazali means that the Ash'arites do not concede that this essence in which the attributes inhere is a receptive cause,[1] so as to be forced to admit an efficient cause for it. He says that the proof of the philosophers does not lead to an existent which has no receptive cause, let alone proving the existence of what has no essence and no attributes. It only proves that it has no efficient cause. This objection is a necessary consequence of their own proof. Even if the Ash'arites had accepted the philosophical theory that what has no efficient cause has no receptive cause, their own statement would not have been overthrown, for the essence which they assume only receives attributes which do not belong to the First, since they assume that the attributes are additional to the essence of the First, and they do not admit essential attributes in the way the Christians do.[2]

And as to Ghazali's words: 323

If it is said: In the same way as the series of efficient causes must have an end, the series of receptive causes must have an end, since if every existent needed a substratum to inhere in it and this substratum again needed a substratum, this would imply an infinite series, just as this would be the case if every existent needed a cause and this cause again another cause—we answer: You are perfectly right and for this very reason we say that the series has an end and that the attribute exists in its essence and that this essence does not exist in something else, just as our knowledge exists in our essence and our essence is its substratum, but does not exist itself in a substratum.

I say:

This statement has no connexion with this discussion either with respect to the philosophical theories he mentions or with respect to the answers he gives, and it is a kind of sophism, for there exists no relation between the question, whether the receptive causes must or must not have an end, and the problem which is under discussion, namely whether it is a condition of the First Agent that it should have a receptive cause.[3] For the inquiry about the finiteness of receptive causes differs from the inquiry about the finiteness of efficient causes, since he who admits the existence of receptive causes admits necessarily that their series must end in a primary receptive cause which is

necessarily external to the First Agent, just as he admits the existence of a First Agent external to the receptive matter. For if the First Agent possessed matter, this matter would not exist numerically and individually either in the first recipient or in the inferior recipients of other things;[1] no, if the First Agent possessed matter, this matter would have to be a matter peculiar to it, and in short it would belong to it; that is, either it would be its primary matter or we should arrive at a first recipient, and this recipient would not be of the genus which is the condition for the existence of all the other existents proceeding from the First Agent.[2] But if matter were the condition for the existence of the First Agent, it would be a condition for the existence of all agents in their actions, and matter would not only be a condition for the existence of the agent's act—since every agent acts only on a recipient —but it would be a condition for the existence of the agent itself, and therefore every agent would be a body.[3]

All this the Ash'arites neither admit nor deny. But when the philosophers tell them that an essence to which such an attribute is ascribed must be a body, they answer: 'Such an attribute is ascribed by you to the soul and yet, according to you, the soul is not a body.'[4] This is the limit to which dialectical arguments in this question can be carried. But the demonstrations are in the works of the ancients which they wrote about this science, and especially in the books of Aristotle, not in the statements of Avicenna about this problem and of other thinkers belonging to Islam, if anything is to be found in them on this question. For their metaphysical theories are pure presumptions, since they proceed from common, not particular, notions, i.e. notions which are extraneous to the nature of the inquiry.

And as to Ghazali's words:

> The series of efficient causes comes to an end for the attribute at the same time as for the essence, since the attribute has an agent no more than the essence has, still the essence provided with this attribute does not cease to exist, although neither itself nor its attribute has a cause.

I say:

This is a statement which is not accepted by their opponents, the philosophers; on the contrary, they affirm that it is a condition of the First Agent that it should not receive an attribute, because reception indicates matter and it is therefore not possible to assume as the final term of the causal series an agent of any description whatsoever, but only an agent which has absolutely no agent, and to which no attribute—from which it would follow that it had an agent—can be

ascribed. For the assumption of the existence of an attribute of the First Agent existing in a receptive cause which would be a condition 326
for its existence is thought by the philosophers to be impossible. Indeed, anything for the existence of which there is a condition can only be connected with this condition through an external cause, for a thing cannot itself be the cause of its connexion with the condition of its existence, just as it cannot be the cause of its own existence. For the conditioned, if it were not connected with its condition, would have to exist by itself, and it needs an efficient cause to connect the 5
condition with it, since a thing cannot be the cause of the existence of the condition of its own existence; but all these are common notions. And in general one cannot imagine that it is possible to arrive by this method, as applied to this problem, at something near evidence, because of the equivocation in the term 'existent necessary by itself', and in the term 'possible by itself, necessary through another', and the other preliminary notions which are added to them. 10

Ghazali says:

The second proof of the philosophers is that they say that the knowledge and the power in us do not enter the quiddity of our essence, but are accidental, and when these attributes are asserted of the First, they too do not enter the quiddity of its essence, but are accidental in their relation to it, even if they are lasting; for frequently an accident does not separate itself from its quiddity and is a necessary attribute of it, but still it does not therefore become a constituent of its essence. And if it is an accident, it is consequent on the essence and the essence is its cause, and it becomes an effect, and how can it then be a necessary existent?[1]

Then Ghazali says, refuting this: 327

This proof is identical with the first, notwithstanding the change of expression. For we say: If you mean by its being consequent on the essence, and by the essence's being its cause, that the essence is its efficient cause, and that it is the effect of the essence, this is not true, for this is not valid of our knowledge in relation to our essence, since our essence is not an efficient cause of our knowledge. If you mean that the essence is a substratum and 5
that the attribute does not subsist by itself without being in a substratum, this is conceded, and why should it be impossible? For if you call this 'consequent' or 'accident' or 'effect' or whatever name you want to give it, its meaning does not change, since its meaning is nothing but 'existing in the essence in the way attributes exist in their subjects'. And it is by no means impossible that it should exist in the essence, and be all the same eternal and without an agent. All the proofs of the philosophers amount to nothing but the production of a shock by the use of a depreciating expression: 'possible', 'permissible', 'consequent', 'connected', 'effect'—but all

this may be ignored. For it must be answered: If by this you mean that it has an agent, it is not true, and if only it is meant that it has no agent, but that it has a substratum in which it exists, then let this meaning be indicated by any expression you want, and still it will not become impossible.

I say:

This is using many words for one idea. But in this question the difference between the opponents consists in one point, namely: 'Can a thing which has a receptive cause be without an agent or not?'

328 Now it belongs to the principles of the theologians that the connexion of condition and conditioned appertains to the domain of the permissible[1] and that whatever is permissible needs for its realization and actualization an agent which actualizes it and connects the condition with the conditioned, and that* the connexion is a condition for the existence of the conditioned and that it is possible neither that a thing should be the cause of the condition of its existence, nor that the condition should be the efficient cause of the existence of the conditioned, for our essence is not the efficient cause of the existence of the knowledge which exists in it, but our essence is a condition for the existence of the knowledge existing in it. And because of all these principles it is absolutely necessary that there should exist an efficient cause which brings about the connexion of condition and conditioned, and this is the case with every conjunction of a condition and a conditioned. But all these principles are annulled[2] by the philosophical theory that heaven is eternal, although it possesses essence and attributes, for the philosophers do not give it an agent of the kind which exists in the empirical world, as would be the consequence of these principles; they only assume that there is a proof which leads to an eternal connexion through an eternal connecting principle, and this is another kind of connexion, differing from that which exists in transitory things.[3] But all these are problems which need a serious examination. And the assumption of the philosophers[4] that these attributes do not constitute the essence is not true, for every essence is perfected by attributes through which it becomes more complete and illustrious, and, indeed, it is constituted by these attributes, since through knowledge, power, and will we become superior to those existents which do not possess knowledge, and the essence in which these attributes exist is common to us and to

329 inorganic things. How therefore could such attributes be accidents consequent on our essence? All these are statements of people who have not studied well the psychological and accidental attributes.

Ghazali says:

And often they shock by the use of a depreciating expression in another way, and they say: This leads to ascribing to the First a need for these attributes, so that it would not be self-sufficient absolutely, since the absolutely self-sufficient is not in need of anything else.[1]

Then Ghazali says, refuting this:

This is an extremely weak verbal* argument, for the attributes of perfection do not differ from the essence of the perfect being in such a way that he should be in need of anything else. And if he is eternally perfect through knowledge, power, and life, how could he be in need of anything, or how could his being attached to perfection be described as his being in need? It would be like saying that the perfect needs no perfection and that he who is in need of the attributes of perfection for his essence is imperfect; the answer is that perfection cannot mean anything but the existence of perfection in his essence, and likewise being self-sufficient does not mean anything but the existence of attributes that exclude every need in his essence. How therefore can the attributes of perfection through which divinity is perfected be denied through such purely verbal arguments?

I say:

There are two kinds of perfection: perfection through a thing's own self and perfection through attributes which give their subject its perfection, and these attributes must be in themselves perfect, for if they were perfect through perfect attributes, we should have to ask whether these attributes were perfect through themselves or through attributes, and we should have therefore to arrive at that which is perfect by itself as a final term. Now the perfect through another will necessarily need, according to the above principles if they are accepted, a bestower of the attributes of perfection; otherwise it would be imperfect. But that which is perfect by itself is like that which is existent by itself, and how true it is that the existent by itself is perfect by itself![2] If therefore there exists an existent by itself, it must be perfect by itself and self-sufficient by itself; otherwise it would be composed of an imperfect essence and attributes perfecting this essence. If this is true, the attribute and its subject are one and the same, and the acts which are ascribed to this subject as proceeding necessarily from different attributes exist only in a relative way.

Ghazali says, answering the philosophers:

And if it is said by the philosophers: When you admit an essence and an attribute and the inherence of an attribute in the essence, you admit a composition, and every compound needs a principle which composes it, and just because a body is composed, God cannot be a body—we answer:

Saying that every compound needs a composing principle is like saying that every existent needs a cause for its existence, and it may be answered: The First is eternal and exists without a cause and without a principle for its existence, and so it may be said that it is a subject, eternal, without a cause for its essence, for its attribute and for the existence of its attribute in its essence; indeed all this is eternal without a cause. But the First cannot be a body, because body is a temporal thing which cannot be free from
331 what is temporal[1]: however, he who does not allow that body has a beginning must be forced to admit that the first cause can be a body, and we shall try later to force this consequence on the philosophers.

I say:

Composition is not like existence, because composition is like being set in motion*, namely, a passive quality, additional to the essence of things which receive the composition,[2] but existence is a quality which is the essence itself, and whoever says otherwise is mistaken indeed. Further, the compound cannot be divided into that which is compound by itself and that which is compound through another, so that one would finally come to an eternal compound in the way one arrives, where existents are concerned, at an eternal existent, and we have treated this problem in another place.[3] And again: If it is true, as we have said, that composition is something additional to existence, then one may say, if there exists a compound by itself, then there must exist also something moved by itself, and if there exists something moved by itself, then also a privation will come into existence by itself, for the existence of a privation is the actualization of a potency,[4] and the same applies to motion and the thing moved. But this is not the case with existence, for existence is not an attribute additional to the essence, and every existent which does not exist sometimes in potency and sometimes in act is an existent by itself, whereas the existence of a thing as moved occurs only when there is a moving power, and every moved thing therefore needs a mover.[5]

The distinctive point in this problem is that the two parts* in any compound must be either (1) mutually a condition for each other's
332 existence, as is, according to the Peripatetics, the case with those which are composed of matters and forms,[6] or (2) neither of them a condition for the existence of the other, or (3) exclusively one the condition for the other.

In the first case the compound cannot be eternal, because the compound itself is a condition for the existence of the parts and the parts cannot be the cause of the compound, nor the compound its own cause, for otherwise a thing might be its own cause, and this kind of

compound, therefore, is transitory and needs an agent for its actualization.[1]

In the second case—and for these compounds it is not in the nature of either of their parts that it implies the other—there is no composition possible without a composing factor, external to the parts, since the composition is not of their own nature so that their essence might exist through their nature or be a consequence of their nature; and if their nature determined the composition and they were both in themselves eternal, their composition would be eternal, but would need a cause which would give it unity, since no eternal thing can 333 possess unity accidentally.

In the third case, and this is the case of the non-essential attribute and its subject, if the subject were eternal and were such as never to be without this attribute, the compound would be eternal. But if this were so, and if an eternal compound were admitted, the Ash'arite proof that all accidents are temporal would not be true, since if there were an eternal compound there would be eternal accidents, one of which would be the composition, whereas the principle on which the Ash'arites base their proof of the temporality of accidents is the fact that the parts of which a body, according to them, is composed must exist first separately; if, therefore, they allowed an eternal compound, it would be possible that there should be a composition not preceded by a separation, and a movement, not preceded by a rest, and if this were permissible, it would be possible that a body possessing eternal accidents should exist, and it would no longer be true for them that what cannot exist without the temporal is temporal. And further, it has already been said that every compound is only one because of a oneness existing in it, and this oneness exists only in it through something which is one through itself. And if this is so, then the one, in so far as it is one, precedes every compound, and the act of this one agent—if this agent is eternal—through which it gives all single existents which exist through it their oneness, is everlasting and without a beginning, not intermittent; for the agent whose act is attached to its object at the time of its actualization is temporal and 334 its object is necessarily temporal, but the attachment of the First Agent to its object is everlasting and its power is everlastingly mixed with its object. And it is in this way that one must understand the relation of the First, God, praise be to Him, to all existents. But since it is not possible to prove these things here, let us turn away from them, since our sole aim was to show that this book of Ghazali does not contain

any proofs, but mostly sophisms and at best dialectical arguments. But proofs are very rare, and they stand in relation to other arguments as unalloyed gold to the other minerals and the pure pearl to the other jewels.[1] And now let us revert to our subject.

Ghazali says:

All their proofs where this problem is concerned are imaginary. Further, they are not able to reduce all the qualities which they admit to the essence itself, for they assert, that it is knowing, and so they are forced to admit that this is something additional to its mere existence, and then one can ask them: 'Do you concede that the First knows something besides its essence?' Some of them concede this, whereas others affirm that it only knows its own self. The former position is that taken by Avicenna, for he affirms that the First knows all things in a universal timeless way, but that it does not know individuals, because to comprehend their continual becoming would imply a change in the essence of the knower.[2] But, we ask, is the knowledge which the First has of all the infinite number of species and genera identical with its self-knowledge or not? If you answer in the negative, you have affirmed a plurality and have contradicted your own principle; if you answer in the affirmative, you are like a man claiming that man's knowledge of other things is identical with his self-knowledge and with his own essence, and such a statement is mere stupidity. And it may be argued: 'The definition of an identical thing is that its negation and affirmation cannot be imagined at the same time, and the knowledge of an identical thing, when it is an identical thing, cannot at the same time be imagined as existing and not existing. And since it is not impossible to imagine a man's self-knowledge without imagining his knowledge of something else, it may be said that his knowledge of something else is different from his self-knowledge, since, if they were the same, the affirmation or negation of the one would imply the affirmation or negation of the other. For it is impossible that Zaid should be at one and the same time both existing and not existing, but the existence of self-knowledge simultaneously with the non-existence of the knowledge of something else is not impossible, nor is this impossible with the self-knowledge of the First and its knowledge of something else, for the existence of the one can be imagined without the other and they are therefore two things, whereas the existence of its essence without the existence of its essence cannot be imagined, and if the knowledge of all things formed a unity, it would be impossible to imagine this duality. Therefore* all those philosophers who acknowledge that the First knows something besides its own essence have undoubtedly at the same time acknowledged a plurality.

I say:

The summary of this objection to the proposition that the First knows both itself and something else is that knowing one's self is

different from knowing something else. But Ghazali falls here into confusion. For this can be understood in two ways: first, that Zaid's knowledge of his own individuality is identical with his knowledge of other things, and this is not true; secondly, that man's knowledge of other things, namely of existents, is identical with the knowledge of his own essence, and this is true.[1] And the proof is that his essence is 336
nothing but his knowledge of the existents.[2] For if man like all other beings knows only the quiddity which characterizes him, and if his quiddity is the knowledge of things, then man's self-knowledge is necessarily the knowledge of all other things, for if they were different his essence would be different from his knowledge of things. This is clear in the case of the artisan, for his essence, through which he is 5
called an artisan, is nothing but his knowledge of the products of art.[3] And as to Ghazali's words, that if his self-knowledge were identical with his knowledge of other things, then the negation of the one would be the negation of the other and the affirmation of the one the affirmation of the other, he means that if the self-consciousness of man were identical with his knowledge of other things, he could not know his own self without knowing the other things; that is, if he were ignorant of other things, he would not know his own self, and this proposition is in part true, in part false. For the quiddity of man is 10
knowledge, and knowledge is the thing known in one respect and is something different in another. And if he is ignorant of a certain object of knowledge, he is ignorant of a part of his essence, and if he is ignorant of all knowables, he is ignorant of his essence; and to deny man this knowledge is absolutely the same as to deny man's self-consciousness, for if the thing known is denied to the knower in so far as the thing known and knowledge are one, man's self-consciousness itself is denied. But in so far as the thing known is not knowledge, it is not man, and to deny man this knowledge does not imply the denial of man's self-consciousness. And the same applies to individual men. For Zaid's knowledge of Amr is not Zaid himself, and therefore Zaid can know his own self, while being ignorant of Amr.

Ghazali says: 337

If it is said: 'The First does not know other things in first intention. No, it knows its own essence as the principle of the universe, and from this its knowledge of the universe follows in second intention,[4] since it cannot know its essence except as a principle, for this is the true sense of its essence, and it cannot know its essence as a principle for other things, without the other things entering into its knowledge by way of implication and consequence;

it is not impossible that from its essence consequences should follow, and this does not imply a plurality in its essence, and only a plurality in its essence is impossible'—there are different ways of answering this. First your assertion that it knows its essence to be a principle is a presumption; it suffices that it knows the existence of its essence, and the knowledge that it is a principle is an addition to its knowledge of its essence, since being a principle is a relation to the essence and it is possible that it should know its essence and not this relation, and if this being-a-principle were not a relation, its essence would be manifold and it would have existence and be a principle, and this forms a duality. And just as a man can know his essence without knowing that he is an effect, for his being an effect is a relation to his cause, so the fact that the First is a cause is a relation between itself and its object. This consequence is implied in the mere statement of the philosophers that it knows that it is a principle, since this comprises the knowledge of its essence and of its being a principle, and this is a relation, and the relation is not the essence, and the knowledge of the relation is not the knowledge of the essence and we have already given the proof of this, namely that we can imagine knowledge of the essence, without the knowledge of its being a principle, but knowledge of the essence without the knowledge of the essence cannot be imagined, since the essence is an identical unity.

I say:

The proposition which the philosophers defend against Ghazali in this question is based on philosophical principles which must be
338 discussed first. For if the principles they have assumed and the deductions to which, according to them, their demonstration leads, are conceded, none of the consequences which Ghazali holds against them follows. The philosophers hold, namely, that the incorporeal existent is in its essence nothing but knowledge, for they believe that the forms[1] have no knowledge for the sole reason that they are in matter; but if a thing does not exist in matter, it is known to be knowing, and this is known because they found that when forms which are in matter are abstracted in the soul from matter they become knowledge and intellect, for intellect is nothing but the forms abstracted from matter,[2] and if this is true for things which by the principle of their nature are not abstracted, then it is still more appropriate for things which by the principle of their nature are abstracted to be knowledge and intellect. And since what is intelligible in things is their innermost reality, and since intellect is nothing but the perception of the intelligibles, our own intellect is the intelligible by itself, in so far as it is an intelligible, and so there is no difference between the intellect and the intelligible, except in so far

as the intelligibles are intelligibles of things in the nature of which there is no intellect and which only become intellect because the intellect abstracts their forms from their matters, and through this our intellect is not the intelligible in every respect. But if there is a thing which does not exist in matter, then to conceive it by intellect is identical with its intelligible in every respect, and this is the case with the intellectual conception of the intelligibles. And no doubt* the 339
intellect is nothing but the perception of the order and arrangement of existing things, but it is necessary for the separate intellect that it should not depend on the existing things in its intellectual conception of the existing things and of their order, and that its intelligible should not be posterior to them, for every other intellect is such that it follows the order which exists in the existents and perfects itself through it, and necessarily falls short in its intellectual conception of 5
the things, and our intellect, therefore, cannot adequately fulfil the demands of the natures of existing things in respect of their order and arrangement. But if the natures of existing things follow the law of the intellect and our intellect is inadequate to perceive the natures of existent things, there must necessarily exist a knowledge of the arrangement and order which is the cause of the arrangement, order 10
and wisdom which exist in every single being, and it is necessary that this intellect should be the harmony which is the cause of the harmony which exists in the existents, and that it should be impossible to ascribe to its perception knowledge of universals, let alone knowledge of individuals,[1] because universals are intelligibles which are consequent on and posterior to existents,[2] whereas on the contrary the existents are consequent on this intellect. And this intellect necessarily conceives existents by conceiving the harmony and order which exist in the existents through its essence, not by conceiving anything outside its essence, for in that case it would be the effect, not the 340
cause, of the existent it conceives, and it would be inadequate.

And if you have understood this philosophical theory, you will have understood that the knowledge of things through a universal knowledge is inadequate, for it knows them in potency,[3] and that the separate intellect only conceives its own essence, and that by conceiving its own essence it conceives all existents, since its intellect is 5
nothing but the harmony and order which exist in all beings, and this order and harmony is received by the active powers which possess order and harmony and exist in all beings and are called natures by the philosophers.[4] For it seems that in every being there

are acts which follow the arrangement and order of the intellect, and this cannot happen by accident, nor can it happen through an intellect which resembles our intellect; no, this can only occur through an intellect more exalted than all beings, and this intellect is neither a universal nor an individual. And if you have understood this philosophical theory, all the difficulties which Ghazali raises here against the philosophers are solved; but if you assume that yonder intellect resembles our own, the difficulties mentioned follow. For the intellect
341 which is in us is numerable and possesses plurality, but this is not the case with yonder intellect, for it is free from the plurality which belongs to our intelligibles and one cannot imagine a difference in it between the perceiver and the perceived, whereas to the intellect which is in us the perception of a thing is different from the perception that it is a principle of a thing, and likewise its perception of another is different in a certain way from the perception of itself. Still, our intellect has a resemblance to yonder intellect, and it is yonder intellect which gives our intellect this resemblance, for the intelligibles which are in yonder intellect are free from the imperfections which are in our intellect: for instance, our intellect only becomes the intelligible in so far as it is an intelligible, because there exists an intellect which is the intelligible in every respect. The reason for this is that everything which possesses an imperfect attribute possesses this attribute necessarily through a being which possesses it in a perfect way. For instance, that which possesses an insufficient warmth possesses this through a thing which possesses a perfect warmth, and likewise that which possesses an insufficient life or an imperfect intellect possesses this through a thing which possesses a perfect life or a perfect intellect.[1] And in the same way a thing which possesses a perfect rational act receives this act from a perfect intellect,
342 and if the acts of all beings, although they do not possess intellects, are perfect rational acts, then there exists an intellect through which the acts of all beings become rational acts.

It is weak thinkers who, not having understood this, ask whether the First Principle thinks its own essence or if it thinks something outside its essence. But to assume that it thinks something outside its essence would imply that it is perfected by another thing, and to assume that it does not think something outside its essence would imply that it is ignorant of existents. One can only wonder at these people who remove from the attributes which are common to the Creator and the created, all the imperfections which they possess in

the created, and who still make our intellect like His intellect, whereas nothing is more truly free from all imperfection than His intellect. This suffices for the present chapter, but now let us relate the other arguments of Ghazali in this chapter and call attention to the mistakes in them.

Ghazali says:

The second way to answer this assertion is to say that their expression that everything is known to it in second intention is without sense, for as soon as its knowledge comprehends a thing different from itself, in the way it comprehends its own essence, this First Principle will have two different objects of knowledge and it will know them both, for the plurality and the difference of the object known imply a plurality in the knowledge, since each of the two objects known receives in the imagination the discrimination which distinguishes it from the other. And therefore the knowledge of the one cannot be identical with the knowledge of the other, for in that case it would be impossible to suppose the existence of the one without the other, and indeed there could not be an other at all, since they would both form an identical whole, and using for it the expression 'second intention' does not make any difference. Further, I should be pleased to know how he who says that not even the weight of an atom, either in heaven or earth, escapes God's knowledge,[1] intends to deny the plurality, unless by saying that God knows the universe in a universal way. However, the universals which form the objects of His knowledge would be infinite,[2] and still His knowledge which is attached to them would remain one in every respect, notwithstanding their plurality and their differentiation.

I say: 343

The summary of this is found in two questions. The first is, 'How can its knowledge of its own self be identical with its knowledge of another?' The answer to this has already been given, namely that there is something analogous in the human mind which has led us to believe in the necessity of its being in the First Intellect.

The second question is whether its knowledge is multiplied through the plurality of its objects known and whether it comprehends all finite and infinite knowables in a way which makes it possible that its knowledge should comprehend the infinite. The answer to this question is that it is not impossible that there should exist in the First Knowledge, notwithstanding its unity, a distinction between the objects known, and it is not impossible, according to the philosophers, that it should know a thing, different from itself, and its own essence, through a knowledge which differs in such a way that there should

exist a plurality of knowledge. The only thing which is absolutely impossible according to them is that the First Intellect should be perfected through the intelligible and caused by it, and if the First Intellect thought things different from itself in the way we do, it would be an effect of the existent known, not its cause, and it has been definitely proved that it is the cause of the existent. The plurality which the philosophers deny does not consist in its knowing through its own essence, but in its knowing through a knowledge which is additional to its essence; the denial, however, of this plurality in God does not imply the denial of a plurality of things known, except through dialectics, and Ghazali's transference of the problem
344 of the plurality which is in the knowledge, according to the philosophers, to the problem of plurality which is in the things known themselves, is an act of sophistry, because it supposes that the philosophers deny the plurality which is in the knowledge through the things known, in the way they deny the plurality which arises through the duality of substratum and inherent.

But the truth in this question is that there is not a plurality of things known in the Eternal Knowledge like their numerical plurality in human knowledge. For the numerical plurality of things known in human knowledge arises from two sources: first the representations, and this resembles spatial plurality;[1] secondly the plurality of what is known in our intellect, namely the plurality which occurs in the first genus—which we may call being[2]—through its division into all the species which are subsumed under it, for our intellect is one[3] with respect to the universal genus which comprises all species existing in the world, whereas it becomes manifold through the plurality of the species. And it is clear that when we withhold the idea of the universal from the Eternal Knowledge, this plurality is in fact abandoned and there only remains in the Divine a plurality the perception of which is denied to our intellect, for otherwise our knowledge would be identical with this eternal knowledge, and this is impossible. And therefore what the philosophers say is true, that for the human understanding there is a limit, where it comes to a stand, and beyond which it cannot trespass, and this is our inability to understand the nature
345 of this knowledge. And again, our intellect is knowledge of the existents in potency, not knowledge in act, and knowledge in potency is less perfect than knowledge in act; and the more our knowledge is universal, the more it comes under the heading of potential knowledge and the more its knowledge becomes imperfect.[4] But it is not

true of the Eternal Knowledge that it is imperfect in any way, and in it there is no knowledge in potency, for knowledge in potency is knowledge in matter. Therefore the philosophers believe that the First Knowledge requires that there should be a knowledge in act and that there should be in the divine world no universal at all and no plurality which arises out of potency, like the plurality of the species which results from the genus. And for this reason alone we are unable to perceive the actually infinite, that the things known to us are separated from each other, and if there exists a knowledge in which the things known are unified, then with respect to it the finite and the infinite are equivalent.

The philosophers assert that there are definite proofs for all these statements, and if we understand by 'plurality in knowledge' only this plurality and this plurality is denied of the Divine, then the knowledge of God is a unity in act, but the nature of this unity and the representation of its reality are impossible for the human understanding, for if man could perceive the unity, his intellect would be identical with the intellect of the Creator, and this is impossible. And since knowledge of the individual is for us knowledge in act, we know that God's knowledge is more like knowledge of the individual than knowledge of the universal, although it is neither the one nor the other. And he who has understood this understands the Divine Words: 'Nor shall there escape from it the weight of an atom, either 346
in the heavens or in the earth', and other similar verses which refer to this idea.

Ghazali says:

Avicenna, however, has put himself in opposition to all the other philosophers who, in order not to commit themselves to the consequence of plurality, took the view that the First only knows itself; how, then, can he share with them the denial of plurality? Still he distinguished himself from them by admitting its knowledge of other things, since he was ashamed to say that God is absolutely ignorant of this world and the next and knows only His own self—whereas all others know Him, and know also their own selves and other things, and are therefore superior to Him in knowledge—and he abandoned that blasphemous philosophical theory, refusing to accept it. Still he was not ashamed of persisting in the denial of this plurality in every respect, and he affirmed that God's knowledge of Himself and of other things, yes, of the totality of things, is identical with His essence without this implying any contradiction, and this is the very contradiction which the other philosophers were ashamed to accept, because of its obviousness. And thus no party among the

philosophers could rid itself of a blasphemous doctrine, and it is in this manner that God acts towards the man who strays from His path and who believes that he has the power through his speculation and imagination to fathom the innermost nature of the Divine.

I say:

The answer to all this is clear from what we have said already, namely that the philosophers only deny that the First Principle knows other things than its own self in so far as these other things are of an inferior existence, so that the effect should not become a cause, nor the superior existence the inferior; for knowledge is identical with the thing known. They do not, however, deny it, in so far as it knows these other things by a knowledge, superior in being to the knowledge by which we know other things; on the contrary, it is necessary that it should know them in this way, because it is in this way that the
347 other things proceed from the First Agent. As to the inquiry about the possibility of a plurality of things known in the Eternal Knowledge, that is a second question, and we have mentioned it, and it is not because of this that the philosophers sought refuge in the theory that the First knows only its own self, as Ghazali wrongly supposes; no, only because in short—as we have declared already—its knowledge should not be like our knowledge which differs from it in the extreme.
And Avicenna wanted only to combine these two statements, that it knows only its own essence and that it knows other things by a knowledge superior to man's knowledge of them, since this knowledge constitutes its essence, and this is clear from Avicenna's words that it knows its own self and other things besides itself, and indeed all things which constitute its essence, although Avicenna does not explain this, as we have done. And, therefore, these words of his are not a real contradiction, nor are the other philosophers ashamed of them; no, this is a statement about which, explicitly or implicitly, they all
agree. And if you have grasped this well, you will have understood Ghazali's bad faith in his attack on the philosophers, although he agrees with them in the greater part of their opinions.

Ghazali says, on behalf of the philosophers:

It may be said that if it is asserted that the First knows its own self as a principle by way of relation, the knowledge of two correlatives is one and the same, for the man who knows the son knows him through one single knowledge in which the knowledge of the father, of fatherhood, and sonhood are comprised, so that the objects of knowledge are manifold, but the knowledge is one.[1] And in the same way the First knows its essence as a principle for the other things besides itself and so the knowledge is one,

although what is known is manifold. Further, if the First thinks this relation in reference to one single effect and its own relation towards it, and this does not imply a plurality, then a plurality is not implied by an addition of things which generically do not imply a plurality.[1] And likewise he who knows a thing and knows his knowing this thing, knows this thing through this knowledge, and therefore all knowledge is self-knowledge connected with the knowledge of the thing known,[2] and the known is manifold, but knowledge forms a unity.[3] An indication of this is also that you theologians believe that the things known to God are infinite, but His knowledge is one, and you do not attribute to God an infinite number of cognitions; if, indeed, the manifoldness of the known implied a plurality in the knowledge itself, well, let there then be an infinite number of cognitions in the essence of God. But this is absurd. 348

Then Ghazali says, answering the philosophers:

We say: Whenever knowledge is one in every respect, it cannot be imagined that it should be attached to two things known; on the contrary, this determines a certain plurality, according to the assumption and tenet of the philosophers themselves about the meaning of 'plurality', so that they even make the excessive claim that if the First had a quiddity to which existence were attributed, this would imply a plurality. And they do not think that to a single unity possessing reality existence also can be attributed; no, they assert that the existence is brought in relation to the reality and differs from it and determines a plurality, and on this assumption it is not possible that knowledge should attach itself to two objects of knowledge without this implying a greater and more important kind of plurality than that which is intended in the assumption of an existence, brought in relation to a quiddity. And as to the knowledge of a son and similarly of other relative concepts, there is in it a plurality, since there must necessarily be knowledge of the son himself and the father himself, and this is a dual knowledge, and there must be a third knowledge, and this is the relation; indeed, this third knowledge is implied in the dual knowledge which precedes it, as they are its necessary condition, for as long as the terms of relation are not known previously, the relation itself cannot be known, and there is thus a plurality of knowledge of which one part is conditioned through another. Likewise when the First knows itself as related to the other genera and species by being their principle, it needs the knowledge of its own essence and of the single genera and it must further know that there exists between itself and those genera and species the relation of being a principle, for otherwise the existence of this relation could not be supposed to be known to it. And as to their statement that he who knows something knows that he is knowing through this knowledge itself, so that the thing known can be manifold, but the knowledge remains one, this is not true; on the contrary, he knows that he knows through another knowledge, and this ends in a knowledge to